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CANADA

IN THE

GREAT WORLD WAR

MEMORIAL EDITION

R. B. W. Turner.

CANADA

IN THE

GREAT WORLD WAR

AN AUTHORITATIVE ACCOUNT OF THE MILITARY HISTORY OF CANADA FROM THE EARLIEST DAYS TO THE CLOSE OF THE WAR OF LIBERATION

BY

VARIOUS AUTHORITIES

VOL. IV.

THE TURN OF THE TIDE

TORONTO
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CHIEF OF THE GENERAL STAFF, O. M. F. C.

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CHAPTER I

INTRODUCTORY

Until the opening of the Somme campaign the Canadian forces in France had been almost continuously engaged in defensive warfare. They had, it is true, taken part with Imperial troops in offensive engagements and had on their own account made many raids into the enemy's lines, but these operations were all of an offensive-defensive character. The Germans during the first two years of the war had such a preponderance of guns, machine guns, trench mortars, and other essential war material, that the Allied armies could do little more than dent their line. To force them from the strong positions they held between the North Sea and the Alps was for the time being impossible. This defensive warfare had tried the citizen soldiers of Canada to the limit, but when, in the late summer of 1916, they moved from the Ypres salient to the Somme area, they had that soldierly bearing and battle confidence that belong only to veterans. Second Ypres, Festubert, Givenchy, St. Eloi, Sanctuary Wood, and Hooge had given the discipline, resourcefulness, courage, and dash that made many of the older battalions admirable shock troops.

Battle operations of vast magnitude had been planned by the Allies, operations that were to turn the tide of war; and in the engagements that eventuated, the forces from Canada were to play an essential part. In the light of the fact that the war was to continue with uninterrupted violence for over two years longer, the statement that the turn of the tide occurred with the offensive work of the Allies in the summer and

autumn of 1916 may seem extreme; but a careful review of the war as a whole will show it to be true. After the Somme battles the Germans were compelled to retreat from positions that they had thought impregnable. At Vimy Ridge they were blasted out of lines they had been confident of being able to hold until the end of the war; and at Passchendaele, with the weather conditions fighting hard in their favour, they were swept from positions that they had built in Flanders as a barrier to hold back the Allies until such time as they could sweep forward as they had done in the opening months of the war. They were fighting a holding battle while slowly getting ready a war machine with which they hoped to roll relentlessly over their foes. But the German High Command must have viewed with alarm the wearing down of this war machine even faster than they could build it up.

In the succession of battles that turned the tide of the war the Canadians played a part of great importance. At the Somme they drove the German forces from their strongest trench systems. Vimy Ridge was largely their victory; and it was they who gave the death blow to the Passchendaele defences. The Germans came back in crushing force in the autumn of 1917 and the spring of 1918; but not with the vast flood of men that had swept over the plains of Belgium and France with irresistible might in the autumn of 1914. Their triumphs were local, eddies rather than an overwhelming deluge. From the time of the Somme battles they were beaten; and if the German High Command did not know it, the Allied armies did, and they had a confidence that is more than half the battle.

Canada, like her sister dominions, Australia and South Africa, achieved her triumphs with voluntary troops; for the soldiers brought into the Canadian army through the operations of the Military Service Act came into the field too late to help in turning the

tide of the war, although many of them played a gallant part in the closing scenes, when the enemy was on the run. Nothing in the history of the war is more remarkable than the readiness and the eagerness with which the youth of Canada took up arms. The First Contingent, of over thirty thousand men, was enrolled literally in a few days. In this contingent fully sixty per cent. were of British birth. Many of the volunteers thought that the war would be a short one and that it might be at an end even before they reached Europe; many were experienced soldiers who had served in South Africa and elsewhere and who eagerly welcomed the call to arms; many others were out of work in a time of wide-spread trade depression and took advantage of the chance to return to the homeland; and many were of that adventurous class who are ready to throw themselves into any fight that presents itself; — all honour to them that when put to the test they played their part in a way that astonished the world: such were the men of Second Ypres, Festubert, and Givenchy. The men of the Somme, Vimy Ridge, and Passchendaele were in many respects different. The ranks of the First Contingent had been sadly thinned in the maelstrom of war. The battalions had passed through experiences such as had never before been endured in battle. They had wallowed in mud and slime, and been subjected to terrific deluges of shells and bullets, to which, owing to lack of preparedness on the part of the Allies, they were unable to make adequate reply. They had endured the horrors of poison gas at a time when preparations had not been made to cope with this diabolical weapon. More men and still more men were needed. What those already in the field were suffering was known to every Canadian lad; yet when the call came for further contingents the response was so great that the authorities had difficulty in handling the men; and this time the men of Canadian birth predominated.

When the First Contingent took the field it was to some extent an unknown quantity. The men were looked upon largely as raw recruits, despite the excellent training they had received in England before being sent "overseas." The old soldiers had little faith in troops that had not been subjected to battle conditions. In their judgment a soldier was not a soldier till he had faced the enemy in the field and been shot over—he was still a civilian, though in uniform. Even if the soldiers by six months' discipline and training had been hardened for the march and the bivouac, such a period was not sufficient to make efficient officers. It was a common saying in the spring of 1915 that the Canadian soldiers were of the right sort, but that they "carried their officers as mascots." This was unjust; but it was true that very few of the officers knew anything of actual war, and in a war of manœuvres might have failed hopelessly. But for the work immediately in hand they required little knowledge of strategy and tactics. Courage and initiative were the things demanded of them, and these for the most part they had in full measure. So admirably did the officers and men acquit themselves after reaching France that from the very first they took rank among the best soldiers in the field, rarely giving ground and rarely being sent at an objective that they did not achieve. They created a tradition for the Canadian troops that were to come after them.

We have seen the 1st Division followed by the 2nd and 3rd Divisions[1] and the Canadian Army Corps come into being. The 4th Division was to be added to this corps before it began its offensive work at the Somme. This division entered the field under more favourable circumstances than any of its predecessors. It had been in process of formation since 1915, but so heavy were the calls on its battalions, due to the depletion in such battles as St Eloi and Sanctuary Wood of

[1] See Vol. III, p. 196, et seq.

the divisions already in the field, it did not arrive in France until midsummer of 1916. It was made up of the 10th, 11th, and 12th Infantry Brigades, the 8th, 9th, 10th, and 11th Canadian Artillery Brigades, and the Divisional Artillery Ammunition Column.

The 10th Infantry Brigade, from the West, consisted of the 44th Battalion (Winnipeg), 46th (Southern Saskatchewan), 47th (British Columbia), and 50th (Calgary). This brigade left England on August 10th, 1916. It was at once sent to the Ypres salient, and on the 22nd of the month took its place in the front line. The brigade was at first commanded by Brigadier-General W. St. Pierre Hughes, but on January 18th, 1917, when it was stationed before Vimy Ridge, training for the great attack of April, its command was taken over by Brigadier-General Edward Hilliam, D.S.O.

The 11th Canadian Infantry Brigade was organized in May, 1916, and hoped to be sent speedily to France. But June came with the battles of St. Eloi, Sanctuary Wood, and Hooge. The divisions in the field had been so cut up that reinforcements were immediately needed, and two of the battalions of the 11th were sent to fill up gaps in the forces already in action. The brigade consisted of the 54th Battalion (Kootenay), 75th (Toronto), 87th (Montreal), and 102nd (Northern British Columbia). At the time of its formation it was under the command of Brigadier-General F. O. W. Loomis. But the losses at Sanctuary Wood compelled a rearrangement of the Command. Major-General Mercer had been killed, and the command of the 3rd Division went to Major-General Lipsett. Loomis was recalled to France, and the 11th Brigade was taken over by Lieut.-Colonel V. W. Odlum, of the 7th Battalion, a young but experienced soldier, who took over his new duties with the rank of brigadier-general.

The 12th Brigade, like the 11th, completed organi-

zation in May, 1916, and was under the command of Brigadier-General Lord Brooke. Its original battalions were the 51st, 72nd, 73rd, and 87th. The fighting in the salient made sad havoc in its numbers, no fewer than twenty-four officers and over seven hundred other ranks of the 51st being drafted to France. Their place was taken by the 78th Battalion. The 12th Brigade was to undergo still further change, the 87th being transferred to the 11th Brigade. When the brigade took the field it consisted of the 38th Battalion (Ottawa), which had recently been doing garrison duty in Bermuda, 72nd (Vancouver), 73rd (Montreal), and 78th (Winnipeg). Shortly after it reached France the command of the brigade was placed in the hands of Brigadier-General J. H. MacBrien, D.S.O.

The commander-in-chief of the 4th Division from the time of its organization was Major-General David Watson, a veteran with more than a year's battle experience of the most trying kind. All the officers commanding infantry brigades had had a distinguished career in the field. Brigadier-General Hughes had already proved himself an able soldier; and his successor in the command of the 10th Brigade, Brigadier-General Hilliam, who had begun his work as a captain of the 5th Battalion, had proved himself a most resourceful officer in the defence of Gravenstafel Ridge, where he was severely wounded on April 25th, 1915. On his recovery he had been promoted lieutenant-colonel and transferred to the 25th Battalion (Nova Scotia). Brigadier-General Loomis, of the 11th, was in the thick of the Second Battle of Ypres, in command of the 13th Royal Highlanders of Canada; and his successor, Brigadier-General Odlum, who had taken over the 7th Battalion (British Columbia) on the death of Lieut.-Colonel Hart-McHarg, although one of the youngest of the officers, had acquired a reputation, especially in the matter of trench raids, second to none

in the Canadian army, or, for that matter, in the entire Allied forces. Brigadier-General MacBrien had been D.A.A. and Q.M.G. of the 1st Canadian Division and had been awarded the D.S.O. for his services. He was afterwards promoted to the General Staff of the Canadian Corps. The General Staff officers and the officers of the Divisional Staff had all seen active service. In the 4th Division were lieutenants and captains who had enlisted as privates; majors and lieutenant-colonels who had begun their military career as lieutenants; and even brigadier-generals who had entered active service as captains. The 4th Division was thus to enter the field with vastly greater advantages than did the 1st, or even the 2nd and 3rd. It was officered by men who knew what they were to expect and who had received intensive training for the work in hand.

The 3rd Canadian Divisional Artillery, which accompanied the 4th Division to France, had had a stiff course of training in England during the spring and summer of 1916. After the 4th Division was organized it was planned to send the artillery overseas as three brigades of field artillery and one howitzer brigade; but it was finally decided to have in each brigade three field batteries and one howitzer battery: so when the brigades left for France the 8th consisted of the 30th, 31st, and 40th Field Batteries and the 35th Howitzer Battery; the 9th of the 32nd, 33rd, and 45th Field Batteries and the 36th Howitzer Battery; the 10th of the 37th, 38th, and 39th Field Batteries and the 43rd Howitzer Battery; and the 11th of the 41st, 44th, and 46th Field Batteries and the 29th Howitzer Battery.

Brigadier-General J. H. Mitchell was in command of the artillery. General Mitchell had had experience in the salient as commander of the 3rd Brigade, C.F.A. His career had been a brilliant one and continued to be so till the end of the war. He had already

been several times mentioned in despatches and had been awarded the Legion of Honour, Croix d'Officier. All the commanders of the brigades had fought in France and Belgium. Lieut.-Colonel D. I. V. Eaton, of the 8th Brigade, had commanded the R.C.H.A. at the front in 1915. Lieut.-Colonel H. G. Carscallen, of the 9th, had proved himself a skilful commander with the 11th Battery. Lieut.-Colonel G. H. Ralston, of the 10th, had won distinction on more than one occasion, receiving particular mention for his good work at Givenchy in June, 1915.[1] Lieut.-Colonel A. G. MacNaughton, of the 11th, had seen active service with the 2nd Brigade, C.F.A.

The 4th Division moved to France by brigades, the 10th arriving on August 11th, the 11th on the 14th, and the 12th on the 15th. The division assembled on the 17th and moved forward to the Ypres salient, from which the other three Canadian divisions were being withdrawn for the Somme operations. It experienced some severe trench warfare and much necessary training, each of the brigades being taken out of the line from time to time for a course of tactical instruction.

Canada had now over 100,000 men, all volunteers, in France, not taking into account the casualties. These had been heavy. In 1915 there had been 14,500, almost entirely in the 1st Divison. In 1916 they increased proportionately with the number of men in the field, and by the end of the year the total casualties were 56,500, a casualty list for two years of 71,000. Canada was paying a heavy price in the fight against militarism, paying it willingly, and ready to pay a still higher price. The Somme, Vimy Ridge, and Passchendaele took heavy toll; so heavy that voluntary recruiting was not sufficient to fill the gaps made in the ranks, and the Canadian Government was forced, regretfully, to resort to conscription. The majority of Canadian young men welcomed the new order of things: many

[1] See Vol. III, p. 187.

had been eager to enlist, but had been held back by family duties, family ties, and family influence. As soon as the Military Service Act came into force hundreds rushed to the recruiting depots to enroll. Conscripts, in the ordinary sense of the word, the men of the new army could not be called. They fitted readily into Canada's war machine, and in the field, where opportunity offered, proved themselves as courageous and resourceful soldiers as those who had voluntarily taken up arms.

CHAPTER II

THE SOMME OFFENSIVE

1. Leaving the Ypres Salient

The arrival of the 4th Canadian Division in France about the middle of August, 1916, was the signal for a general exodus of the Canadian troops from the Ypres salient to the Somme area. Although newly arrived at the front, the 4th Division was no less eager to get into the conflict than the other three divisions were to leave Belgium for France, where there was a prospect of greater activity; and one has not to seek far for the reason.

The three divisions, the 1st, 2nd, and 3rd, which were already in the well-known salient, had had a comparatively long period of rest, after the trying experiences of the campaign of April, May, and June. They were still almost continually under fire, but they had not for a moment lost their aggressiveness, being constantly on their guard against any surprise and occasionally indulging in profitable raids. But for some time their operations were of a minor nature. Many of the men had had long battle experience and were naturally anxious to be transferred to France, where the fighting was known to be more open and of a sterner character. They were ready to be again put to the test. It was not enough for them that they were holding the line. There was real fighting elsewhere and they were keen to be in the thick of it.

Without having had any great opportunity of gaining anything like the same experience, the men of the latest Canadian division to arrive on the battle-front

soon reached the same state of mind. For a time it was satisfactory to know that they were in the actual theatre of the world's greatest war: but for some of the battalions, at least, the waiting, though absolutely necessary, had been most trying. One of these battalions, mobilized since the winter of 1915, and others formed not long afterwards, had been called upon so frequently to furnish reinforcements for the forces already in France that it had been impossible for them to be despatched as units, and it was not until August, 1916, as stated, that the division was in readiness to proceed. Still another battalion had been called upon to do garrison duty for over ten months in Bermuda;[1] and, although it had the honour of being the first purely volunteer Colonial force to do that duty, officers and men alike were eager to show their mettle in the trenches and to know for themselves what war conditions really were. Shortly after the middle of August the 4th Canadian Division arrived in the salient and, after having received its baptism of fire there, followed the more experienced divisions to the Somme.

As before mentioned, since the middle of June there had been no actions of a momentous character in the area assigned to the Canadians in Flanders. The salient was, however, a most disagreeable one and casualties were constantly occurring, as must inevitably be the case where the enemy is watchful and well-prepared. There was the occasional raid, the usual artillery registration and retaliation, the eternal sniping, the necessity of sending down ration parties, of establishing listening posts, of detailing wiring parties, of improving the front line, communication, and other trench systems. The battalions were regularly relieved at intervals and given tactical instruction somewhere behind the lines. While they were thus resting they were required to furnish

[1] See Vol. III, p. 329 et seq., of this series.

necessary quotas of working parties. After the heat, with the accompanying discomforts of the summer season, came the rain and colder weather of the early autumn. The ground absorbed some of the water, the shell holes held more, and the communication trenches had an unhappy adaptability for reserving a seemingly unlimited supply, which could be used for absolutely no good purpose. German machine gunners from their cleverly concealed nests played upon the communication trenches day and night, but more particularly at night, when the Canadians, under the cover of darkness, sought to bring up their rations and other supplies. There was an enormous waste of what was apparently perfectly good German ammunition, but there were also many casualties — enough to convince any soldier that it was wisdom to take advantage of what cover there was. The communication trenches afforded the only protection, and the only comfort there was in them was the feeling of some slight security.

Naturally, therefore, the Canadians looked forward with unaffected joy to a change in surroundings. They had found trench life more or less monotonous and irksome, and preferred open fighting, or, at least, as much of it as circumstances would permit. There were no complaints; each task allotted was cheerfully and willingly performed; but it was with a feeling of relief that they received the order to hand over the trenches to battalions of the Imperials; and the Ypres salient saw the last of the Canadians for that year at least.

The march to the Somme was in the main uneventful, although it made a lasting impression upon those who were required to undertake it. To the men who had seen France only from the soldiers' "observation cars," it was a revelation. It gave them an opportunity of meeting the French peasants, though of the men there were left only the very old or the very

young. The able-bodied were all at the front, and many others with them who under ordinary war conditions would certainly not have been considered fit for service. The people who were now met were different from those behind the lines in Flanders. Except in a few instances nothing was left undone to make the Canadians feel that they could, within reason, have what they liked, and every kindness was showered upon them. Perhaps it was because so many were able to speak the French language that the Canadians made friends so readily with the French people; and perhaps because it was realized that these men had come great distances to assist in seeing that decency and right should prevail in France and Belgium.

The marches themselves were not all joy. Packs and equipment had a disagreeable habit of seeming to increase in weight with each step they were carried; and many of the infantry resolved there and then that if they had to do the thing over again they would join some other branch of the Service where horses and transports were more in evidence. The singing of songs was encouraged; and it helped undoubtedly, but an organized effort at a rendition of the familiar "Pack all Your Troubles in Your Old Kit-bag" would invariably call for the remark that the kit-bag was already much too heavy, and that to pack anything more in it would mean that the possessor would be unable to carry it another step. The metrical system, so far as it applies to distances, also came in for most unfavourable criticism. The peasants either did not know the distances from one place to another, or, thinking to make the men feel a little more cheerful, gave them the figures at a considerable reduction. The sign-posts were, perhaps, a little more accurate, but even they were not to be trusted.

"To-day, men," an officer might confide to his platoon, "we are to have an easy march. We are to

be billeted to-night at 'B' farm, four kilometres the other side of the town of 'A', which is exactly twelve kilometres from here."

A map might be produced to show that this statement was correct, but the map had to be read with a good deal of caution. The distances which had just been given were as the crow flies. No roads led in that direction or anything like it. Even at the best the distance through the town was not taken into consideration in the calculation. A man who was careful and accurate at figures would gather from the officer's remarks that sixteen kilometres would cover the travel for the day, but he would probably be easier in his mind if he were not able to count at all. He would get there just as soon as his comrades and would need no second telling when the order came to "fall out."

Notwithstanding these drawbacks, the march to the Somme after the trench life was a great relief; and the Canadians were able, to some extent at least, for the time being to throw aside the thought of war. At this season of the year France was at her best. Where the country was not devastated the peasants were busy on their farms. The fields were a mass of green and gold. Flowers bloomed everywhere — a wonderful thing for men who for many months had seen little or nothing of Nature's beauty. There were frequent rests, and the orders for each day provided, as far as possible, that the strength of the troops should not be overtaxed. It was the desire of the officers that the men should arrive at the Somme in perfect condition for the serious work ahead of them, and, as events were to prove, they did. Each of the Canadian divisions came prepared and eager for anything they might be asked to do. They had given magnificent service in Flanders and were now to demonstrate their fitness for the enormously important tasks they were to be assigned in a new theatre of fighting operations.

Away from the sound of the guns, they had time to realize what war really meant. They could not but be impressed by the sacrifices made by the peace-loving people of France. They came to understand how these people had suffered from the lust of power of the German aggressors. They saw what were once peaceful homes shattered; heaps of rubble where recently had stood thriving villages. Where once had been song and laughter and contentment, the people spoke now in whispers of fearful experiences; told of homes broken up; of husbands, fathers, brothers, and sons who had gone away, many of them not having had an opportunity of saying farewell, and many of whom were not to return.

The Canadian soldiers, then, saw a side of the war which, perhaps, had not been previously appreciated by them. The sublime faith of these people appealed to them, and strengthened their conviction that they were fighting in the cause of right and that Germany and her allies must be made to pay for the horror into which the world had been convulsed. Nor were they allowed to go forward under any false impression as to what was ahead of them. From the occasional French soldier, home for a few days, the people had heard much about the fierce character of the fighting in the Somme area; and when the Canadians told where they were going the Frenchman would shake his head and reply that the Somme was a bad place; and he was undoubtedly right.

2. The Situation on the Somme

To understand the situation on the western front when the Canadian army began to arrive at the Somme in September, 1916, it is necessary to have an outline, at least, of what had occurred in that area up to this time. Until the middle of September, 1915, this front had been held against the enemy by the French.

On September 15th the British took over that part of the battle-line from Arras to the Somme river, thus relieving the hard-worked French troops for much-needed rest and for further operations elsewhere. For several reasons there was not much campaigning of a strenuous character during the winter months following.

It is conceded, and after events have shown conclusively, that the German Command would have shown much greater wisdom had it been content to have fallen back, while there was yet time, and to have established its armies firmly in positions in the rear, where Nature had provided better means of defence. At the moment things were not going particularly well with the Central Powers on the eastern front; and the Russian inroads in Austria were of such a character that, by an adjustment of the line, troops might easily have then been spared from the western theatre of war. However, this plan, although it was considered, was abandoned, and the Germans carried to completion the work of fortifying their positions. They sat tight in their admirable trench system, firm in the belief that it was absolutely impossible for any forces the Allies might be able to launch against them to break through. Indeed, when many of these defensive works were subsequently examined, the wonder was that the Allies had succeeded in effecting their capture. But the Germans had overestimated their own powers of resistance, and they had at the same time underestimated the strength and determination of the Allies. Time was also an important factor for their opponents. The enemy had up to this period superiority in men, guns, and munitions; and in aerial operations, also, he had the advantage of greater numbers of swifter and more powerful machines. During the winter months, therefore, the Germans contented themselves with constructing line after line of trenches, redoubts, concealed machine-

gun emplacements, dug-outs of considerable size and depth, and other defensive positions that almost baffle description. The nature of the country admirably adapted it for defensive warfare. Chalk quarries provided strong natural posts; trenches of unusual depth and strength were constructed; and communication lines were established which enabled the German troops to move about behind their front positions almost without obstruction or interference. Even after the most intense and long-continued bombardments many of these trenches and dug-outs were found to be in a remarkable state of preservation. Underground passages ran from one post to another, and thousands of men could be concealed in these in readiness for any movement, offensive or defensive. Barriers of every conceivable sort were constructed against the possible approach of the Allied forces. In short, there were thousands of positions which were considered to be practically secure against even the heaviest artillery. The only way in which the Allies could effectually dispose of the enemy was by hand-to-hand fighting, by bomb and bayonet attack; and this, to a large extent, was the method adopted, the artillery being used in a most effective manner to compel the Germans to remain under cover until the infantry were able to grapple with them at close quarters. And in the hand-to-hand fighting the Allies had a pronounced superiority.

At the time of the first British thrust in the Somme region the enemy had, for the most part, the advantage of holding the higher ground and of direct observation, and, in addition, a superb system of light railways on which to depend for the despatch of supplies and reinforcements. They were evidently fully satisfied to await developments. Meanwhile the British were becoming stronger each day and were in no particular hurry to begin the operations which were to have such a far-reaching effect in the war.

Roughly speaking, the line of the assault, which began after artillery preparation on July 1st, 1916, ran from north to south through Gommecourt, east of Hebuterne, along the high ground in front of Serre and Beaumont Hamel, and crossed the Ancre river a little to the north-west of Thiépval. From in front of Thiépval it ran east of Authuille, covering Ovillers and La Boiselle. From this point it extended about a mile and a quarter east of Albert, passed south round the village of Fricourt, turning there to the east, covering Mametz and Montauban.

The artillery bombardment of the German front line began on June 25th, and on July 1st the Allies went over the top on a twenty-five mile front. After desperate fighting around Ovillers and La Boiselle, the latter fell on July 5th, and the former, finally, on Sunday, July 16th. Another stage of the British advance began on July 14th. This attack met with complete success, and by the evening the British held the whole of the second line from Bazentin-le-Petit to Longueval. Desperate fighting continued, and on July 26th the whole of Pozières had been captured. By the second week in August steady pressure was being everywhere applied to the enemy. The ridge overlooking Thiépval was held and all the high ground north of Pozières, giving a clear view of the country towards Bapaume. The British were between Longueval and Ginchy, and were now mainly occupied in repelling violent efforts of the enemy to recover lost ground. During the last week of August the troops facing the German right wing steadily advanced, pushing their way to the edge of Mouquet Farm. On August 24th they moved forward towards Thiépval, coming within five hundred yards of that strongly fortified place.

This, then, briefly stated, was the situation when the first of the Canadians reached the Somme. On Sunday, September 3rd, the whole Allied front pressed

GETTING A HEAVY GUN READY FOR BATTLE

"THE LONG ARM"

Firing naval guns behind the Canadians

Canadian Official Photographs

forward; and certain battalions of the 1st Canadian Division supported the Australians, who were attacking on the extreme left near Mouquet Farm and towards Thiépval, the Canadians occupying a position at Tom's Cut.

The 1st Canadian Division (General Currie) arrived in the Somme area on September 1st. Headquarters were established at Rubempré, but were later moved to Tara Hill. The division was not to be given much rest; a long-drawn-out battle was on and the Canadian forces were speedily to be sent into action. Other overseas forces were already in the field in this quarter, and on the very day of their arrival the 1st Infantry Brigade took over the right section of the line, south-west of Courcelette, under orders of the 4th Australian Division. The following day the 2nd Infantry Brigade marched to the Brickfields, near the shell-shattered town of Albert. On the 3rd of the month the 3rd Brigade took charge of a part of the left section of the line, extending from the Mouquet road to the south of Mouquet Farm, a spot that was the scene of some of the fiercest fighting of the entire war. General Byng now took over the command of the line north-east of Albert. Two days later the 1st Canadian Divisional Artillery was on the scene of action, having taken over from the 2nd Australian Divisional Artillery.

Even in the short time that elapsed before the arrival of the 2nd (General Turner, V.C.) and 3rd (General Lipsett) Canadian Divisions, the 1st Division was kept particularly busy by the Germans, who made several ineffectual attempts to regain lost ground. A brilliant bit of defensive fighting was engaged in on September 8th, when a small party of Canadians were attacked by about ten times their number of the enemy. These men, knowing the odds to be faced, might easily have retired without the loss of any important strategical position, but they held

their ground through the heaviest sort of fighting. Reinforcements came up hurriedly and the assailants, after paying dearly for their temerity, were hurled from a trench into which they had won their way.

Probably with a view to shaking their confidence or to rendering them less aggressive, the German artillery pounded night and day against the positions in which they had reason to believe the Canadians had established themselves. The effect was exactly the opposite to that which they had expected, and it fell to the lot of the 2nd Battalion to prove this conclusively. The possession of one stretch of German trench south-east of the Windmill on the Bapaume road was necessary as part of the closing movement on Courcelette. The 2nd Battalion had been sent up to relieve the 4th Battalion early in the afternoon of September 9th, and the men had hardly had time to familiarize themselves with their surroundings, a little over three hours in fact, when they went over the parapet. The Germans had suffered from a heavy barrage, but occupied their trenches in such numbers that they were able to put up a desperate resistance. However, the fighting spirit of the Canadians was thoroughly roused, and all efforts on the part of the enemy to maintain his hold on the position were swept aside. Immediately thereafter, while the prisoners, 138 in all, were being taken out and the wounded removed, the German artillery attempted, by heavy shelling, to drive back their successful opponents, but their efforts were in vain. Having taken the portion of the trench which was their objective, the Canadians joined up shell holes in front and maintained themselves there. In the meantime bombing parties cleared the trench within bombing distance on either side of the position, and communication lines were built through the ground that had been taken. The operation was a distinct success. The losses, though considerable, were small in comparison with those of

the enemy. Two officers were killed, and nine wounded, of whom three subsequently died: of other ranks the casualties totalled 259. But such affairs as this were only incidents, important as they were, in the general fighting.

From the 6th of September the artillery on both sides pounded away incessantly. On that day the Germans paid much attention to the Canadians, at first vigorously shelling their left, but gradually increasing their fire until the whole front line was suffering an intense bombardment. On September 7th, Kay Trench was flattened; and, in retaliation, the Canadians directed their attention to Zollern Redoubt. It was evident that the Germans were preparing an attack in great force, and the Royal Flying Corps observers reported that the communication trenches were swarming with troops. As a result of this information the enemy communication lines from Courcelette were heavily shelled. Terrific fighting occurred on the 8th, the Canadians being temporarily driven back by a strong attack from Mouquet Farm while the 2nd Brigade was carrying out a relief of the 3rd. In the afternoon a second attack was defeated in hand-to-hand fighting; and in the evening the Germans were finally repulsed. Again on the 10th the Canadian lines were heavily bombarded, but a threatened attack by an immense formation of the enemy along the frontage held by the 1st Brigade was disposed of by our artillery barrage. Several German raids from the direction of Mouquet Farm were also repulsed by the 2nd Brigade, who inflicted numerous casualties. On this date the 3rd Canadian Division arrived on the Somme, having been preceded by the 2nd Division on September 7th.

Numerous heroic deeds are officially reported of the fighting about this time. The Germans made continual efforts to pierce the Canadian lines, and their patrols and snipers were ever active. In one case

Lieutenant Matthews, with three scouts of an Edmonton regiment, caught five Germans hiding in a shell crater. This officer killed one German and mortally wounded another by bombing, disposed of a third in a hand-to-hand conflict, and was himself wounded by a bayonet thrust through the shoulder. Scout Vernon shot the assailant. The remaining member of the hostile patrol fired point-blank at one of the Canadian party and, while attempting to escape, was bayoneted just as he reached his own wire. On another occasion a patrol of ten men from a Montreal battalion, under Captain Laframboise, encountered a number of Germans, and in the darkness each party at first mistook the other for friends. In the hand-to-hand struggle which ensued one German was killed and another wounded. The remainder managed to escape. There were scores of such affairs, so many, in fact, that deeds of the greatest heroism passed practically unnoticed.

In every line where the Canadians were employed there was almost constant fighting. A magnificent defence of a hotly contested locality was conducted in one instance by a Regina battalion. Despite a heavy hostile bombardment, a forward company under Captain Cameron clung to its positions through two enemy attacks. That excellent shooting was done by the artillery is shown also by the fact that a large earthwork, in the construction of which the Germans spent several weeks, was completely destroyed by one of the siege batteries under Major Cape.

These were but incidents of the long-continued battle or series of battles. Both days and nights were busy times. After the arrival of the 3rd Division, the 1st Division, on the 11th of September, was relieved in the right section by the 2nd Division, and early that morning the 4th Brigade was called upon to repel an attempt to rush posts established in front of the line.

The 3rd Canadian Division entered the actual fighting area on September 12th, on which day the Canadians took over a new area — the Ovillers-Courcelette road and the ground south of it to Moy Avenue. The Canadians were constantly engaged in building saps with a view to approaching forward operations. The Germans did all in their power to hamper this work: shells, machine-gun bullets, and bombs were freely used against the working parties, with a resultant heavy list of casualties. The 8th Brigade of the 3rd Division relieved the 2nd Brigade on the Mouquet sector and was immediately called upon to repulse a strong attack from Mouquet Farm. The brunt of this attack was borne by the 2nd Battalion of the Canadian Mounted Rifles; and the assaulting waves were hurled back upon their entrenchments, being heavily punished by machine guns and Stokes trench mortars.

Preparatory to the great offensive, which was shortly to be launched, the Canadians made steady progress. Montreal, Toronto, and Vancouver battalions forced their way through heavy barrages to a line of trenches where an assault was being delivered. These trenches were consolidated despite the terrific fire, and severe bombing attacks were repulsed. Eternal vigilance was exercised against raids. On one occasion a movement was observed in the direction of Mouquet Farm, at which so many of these affairs originated, and this resolved itself into an attack in mass. However, the Germans were driven back with heavy loss. Early the following morning another attack was launched against a trench held by two officers and twenty-four men of a Montreal battalion. The defending party was greatly outnumbered, and the enemy succeeded in entering the trench; but the greater part of the position was recaptured by a promptly organized counter-attack.

A valuable observation post in the hands of the

Germans was the next objective, and, despite adverse conditions, the Canadians moved forward against a salient in the German line, some five hundred yards in length. The attack was launched in broad daylight by three companies under Major Vanderwater, and the advance against the German line was steady. The artillery laid down a barrage in front, and the men followed closely. German machine gunners attempted to stop the attack; and though their fire was unavailing, they continued to work their guns to the last, when the whole of the garrison were surrounded, and either surrendered or were bayoneted. Some attempted to escape, but were shot down by a Lewis gun which had been brought up. The Germans, realizing that their positions must be held at all costs, organized repeated counter-attacks, which were in every case repulsed. There were also constant artillery duels, and during these the Canadians were enabled to observe that the *moral* of their opponents was growing steadily weaker. Indeed, in several cases the Germans attempted to make it understood that they would welcome being made prisoners without further struggle. In the air the British aviators, many of whom were Canadians, were also showing their supremacy. They carried the war into German territory, and the land forces were interested spectators of numerous thrilling aerial battles fought over the enemy lines. Thanks to this branch of the Service, accurate photographs were obtained of the ground that had to be taken in front; and our troops were immediately advised of any change that was being made in the disposition of the enemy forces.

3. The Sugar Refinery

On September 13th the artillery began especially to prepare for an attack in force that had been planned, and a furious bombardment sent the Germans to

cover. The capture of Courcelette was the ambition of the Canadians, but it was not to be achieved until after some of the heaviest fighting that had yet been seen on the Somme front. The whole operation was successful—so successful, in fact, that it was not until it was completed that the full extent of the victory was realized. The capture of the village was but a part, although a vitally necessary part, of the operation along the entire front, in which the Fourth British army and the French army, on the right, south of the Somme river, were engaged. The capture of the Sugar Refinery was, indeed, the first phase of the battle, and it was carried out so speedily that the Germans were literally swept off their feet. Moreover, the Canadians were in that frame of mind which goes far to ensure success in fighting of a severe character. In many cases they had had to be content to be observers of the fighting and to remain in their trenches while furious bombardments of their positions were in progress. And it was a rather uncomfortable position in which they had been for the past few days in many parts of the line. There was a good deal of satisfaction in the thought that their own artillery was inflicting severe punishment on the Hun and that immense superiority rested with the Allied forces in this particular.

The Canadians still retained thoughts of the Ypres salient, where they had had to remain in defensive positions, in which they had been exposed to fire from three sides. The Somme was better; the fighting was of a more open character and there was more of it. They were, of course, not familiar with the country over which the attack was to be made, except in a general way; but they did know that the character of it was not greatly different from the ground for some miles in their rear. The road from Albert to Bapaume, thanks to the indefatigable efforts of the engineers and the working parties, was in a tolerable

state of repair; but it was only by constant attention, under shell-fire, that it was kept so. On all sides there was an unspeakable waste; the road was shelled by the enemy intermittently, and the area on each side came in for its share of the devastation. On every side the country resembled a strangely ploughed field and presented a scene of utter desolation. All about were ruined villages, and of Pozières, at the extreme front of the British line, nothing remained but a mass of broken brick and stone; not a tree in the place was left standing. On our front, a very few trees marked the position where stood the Sugar Refinery, or what remained of it. A mile and a half from Pozières, the Bapaume road ran half-way between the villages of Courcelette and Martinpuich, the former a little more than a quarter of a mile to the left. The Sugar Refinery was an outpost of Courcelette and had been converted into a most formidable defensive position of both that village and the left flank of Martinpuich.

Between all these positions and the British lines ran a series of strong German trenches, by the use of which the enemy hoped to hold back any thrusts. Two of the most important of these trenches were Sugar and Candy, the latter of which led from the refinery to Martinpuich and the former to McDonnell road, which itself ran parallel to the Bapaume road. These two trenches met at right angles and provided an especially strong defence of the position sought by the Canadians. The refinery was a veritable hornet's nest of machine guns and, to add to the difficulty of successful attack, the Germans held higher ground in the rear, from which their artillery could sweep the ground over which the Canadians must pass. The task of taking this position was entrusted to the 2nd Division; full confidence was placed in its ability to overcome the almost insurmountable obstacles, and that confidence was amply justified. The left of the attack joined up at McDonnell road with the 3rd

Canadian Division and the right with the 15th (Imperial) Division, which was facing Martinpuich, the whole starting from a line of trenches about half a mile in front of Pozières. The particular troops detailed were the 4th and 6th Brigades, with the 5th Brigade held in reserve.

The official order shows that the sector to the right of the Bapaume road was entrusted to the 4th Brigade, under Brigadier-General R. Rennie, M.V.O., D.S.O., while the left sector was in charge of the 6th Brigade, under Brigadier-General H. D. B. Ketchen, C.M.G. The line of the 4th Brigade was made up as follows: on the right the 18th Battalion (Western Ontario), commanded by Lieut.-Colonel H. L. Milligan; in the centre the 20th Battalion (Northern and Central Ontario), commanded by Lieut.-Colonel C. H. Rogers; and on the left the 21st Battalion (Eastern Ontario), under Lieut.-Colonel Elmer Jones. In Brigade Reserve was the 24th Battalion (Victoria Rifles of Canada), under Lieut.-Colonel J. H. Gunn. The attacking line of the 6th Brigade consisted of the 27th Battalion (Winnipeg), commanded by Lieut.-Colonel J. P. Daley, D.S.O.; the 28th (North-west), commanded by Lieut.-Colonel J. F. Embury, C.M.G.; and the 31st Battalion (Alberta), under Lieut.-Colonel A. H. Bell; with the 29th Battalion (Vancouver), under Lieut.-Colonel J. S. Tait in Brigade Reserve. The field-guns concerned in the attack consisted of the 1st Brigade of the 1st Canadian Divisional Artillery and four brigades of the 18th (Imperial) Divisional Artillery, on the right; and, on the left, three brigades of the 1st Canadian Divisional Artillery and one brigade of the Lahore Artillery, under the command of Brigadier-General Thacker.

The artillery work in preparation for the attack began about one o'clock in the afternoon of September 14th. For over two hours the engines of destruction hurled their fateful messages into the lines of the

Germans, and about four o'clock almost complete silence fell upon the opposing armies. The work of the artillery was uncanny in its accuracy. Each detail had been planned beforehand; each gun had its special objective; the moves of the infantry were preceded by remarkably precise barrages, which were lifted from time to time, exactly as the occasion demanded. The artillery power of the enemy must not be underestimated; but the aerial services of the Allies had furnished information as to the exact location of his batteries and many of these were silenced in advance of the onset of the Canadian troops. There was no confusion and no misunderstanding or misinterpretation of orders. The plan had been worked out so carefully and so completely that the infantry were assured from the start that nothing had been left undone that would give them all possible protection.

Before the attack was launched, however, there occurred an incident that might have had an unfortunate effect upon the scheme of battle. The main attack was staged to open at dawn on the morning of the 15th, and while the Canadians were waiting for the "zero" hour a strong bombing party of the enemy made a determined attack upon the right sector of the position held by the 4th Brigade. The situation was undoubtedly an awkward one, and but for the courage of the defenders might easily have changed the whole course of events — might possibly have delayed the entire attack. The Germans, evidently, could not fathom the meaning of the violent artillery bombardment that they had suffered, and had sent out this aggressive party of bombers to ascertain, if possible, just what the intentions of the Canadians were. It is almost certain that the information they sought did not reach them through their own messengers; but they were to know — too late for them to do anything to avert their approaching punishment. These bombers came out of the darkness, but their presence

was observed in time for the warning to be given. A portion of the attacking party actually succeeded in reaching the Canadian trenches, but none of them returned to their own lines. There was an exchange of hand grenades and bombs; a machine gun was turned on the intruders; and this brisk but serious onset was soon ended. It may have been that this attack was but a preliminary to a greater one which was being organized and which would have been launched had the first one been at all successful. In any event the Germans had large bodies of men assembled in their most advanced positions,—this much was learned,—and this meant for them very great losses when they were caught, a moment later, in the Canadian barrage.

The morning of September 15th was bright and clear, and there was every prospect of high visibility —a good day for a "scrap," as the soldiers express it. The journey over the top was fixed for 6.20, and at that moment the massed artillery broke into a frenzy of activity; shells of every calibre were hurled over the heads of the waiting and impatient infantry. When the signal for the attack was given, the Canadians sprang from their jumping-off trenches and began their advance. Before them the artillery barrage advanced stage by stage, with remarkable precision and great intensity of fire. "In successive waves," to quote the official report, "our infantry moved forward, climbing over the shell-torn ground, leaping the battered trenches. Among them burst the enemy's shells. The noise was terrific. Machine-gun and rifle fire poured into them. Steadily they mounted the last ridges, saw Martinpuich on their right, and looked over the brick ruins and white chalk mounds of the Sugar Refinery; and the trenches to the right and left were to be their objective. No sooner were the first lines of German trenches secured than the assaulting waves passed onwards." The first barrage lifted in four minutes to a line about one hundred yards

farther on, and, a minute later, the first line was securely in the Canadians' possession.

Flushed by their initial success, the troops swept ahead, following their barrage, and in a brief space another line of trench fell into their hands. This lay four hundred yards from the first trench, and extended from the Bapaume road to the Martinpuich road. Much work had been done by the Germans to make this trench impregnable, and it was won only after a most stubborn battle.

And now, for the first time, appeared those monsters of modern warfare, the "tanks." Two of them, the "Crème de Menthe" and the "Cordon Rouge," lumbered up to the scene and, in the midst of the men, moved ponderously forward to do their part. The effect was as a powerful stimulant to the charging troops, and the fusillade of machine-gun and rifle fire lost its terrors. A rain of bullets was directed against the sides of these armoured land-ships, but they were invulnerable; and, after a brief, nervous resistance, the Germans turned and bolted in consternation. They were powerless against this new weapon of their enemy. In and out one of the tanks progressed, crushing machine-gun nests, bridging trenches and enfilading them with a hail of bullets, and deluging the fleeing foe with a storm of lead. All obstacles met were speedily surmounted, and in the meantime the Canadian troops were consolidating the positions which the Germans had thought strong enough to repel any infantry attack that could be launched against them. They had not bargained for tanks, the greatest and most effective surprise of the war. In negotiating a particularly difficult spot one of the tanks capsized in a shell hole. The enemy, as it lay helpless on its side, made an effort to capture it. Machine guns pelted it with bullets and a swarm of Germans rushed at it with rifles and bombs. But their efforts were in vain. They could make no impression

TANKS IN ACTION

TANKS RESTING AFTER BATTLE

Canadian Official Photographs

on its steel hull. While at this work they came under a heavy fire and those who were not casualties bolted for safety to the rear.

All along the line of attack the assaulting waves were successful and were able to maintain a fairly even frontage. The 18th Battalion on the right and the 20th in the centre fought their way through the fire and reached Candy Trench, while the 21st gained a substantial footing in the Sugar Refinery itself. Thus the fall of this strongly entrenched German position was even more sudden than had been expected; and though the determined work of the infantry had ensured success, it was undoubtedly due to the tanks that there was not far more serious sacrifice of life.

But glorious though their achievements were the fighters of the redoubtable 4th Brigade were not yet satisfied. All their objectives had been gained and the work of consolidating the positions taken was proceeding speedily, when the scouting officer of the 20th Battalion, Captain Heron, M.C., went forward with a patrol to ascertain what lay in front. This party worked its way carefully through the intense fire now being directed by the Germans against the Sugar Refinery and entered what was known as Gun Pit Trench, a distance of over eight hundred yards. This daring movement was most timely; the enemy were found to be quite unprepared. The Germans had manned the trench in insufficient numbers to put up an effective resistance, and in addition their *moral* had been greatly shaken by the appearance of the tanks at the refinery. These facts were reported, and when the Canadians pushed forward their advance in force the Germans were driven out of the position, those who were unable to retire being taken prisoners. The victors were thoroughly wearied by their long, continuous fighting; but they were brimming over with confidence and were so full of fight that they could not

be stayed. Again they forced the attack and by noon gained a line along the eastern side of a sunken road. Here they were satisfied to dig themselves in. It had been a wonderful morning for the brigade, and this fine performance was responsible to a large extent for the success of operations that followed almost immediately.

As it so developed the 6th Brigade, on the left, encountered opposition of a different character and fought its way forward despite most desperate resistance. A sunken road gave the Germans a decided advantage in position. This road, on the western edge of Courcelette, had been deeply entrenched and numerous strong points had been established. Along the brigade flank, also, posts had been prepared, and all of these were strongly held. The 31st Battalion, of Alberta, had these obstacles to contend with and was also required to organize a defensive flank. All this had to be done in time to keep up with the main advance, and it is immensely to the credit of the battalion that it was able to accomplish it. In the original advance in this sector the 27th Battalion fought on the right, and the 28th on the left, while the 31st acted as moppers-up to both. The brigade in its advance moved forward on a front of slightly over a mile, and to reach its final objective had to cover a like distance in the face of heavy and continuous fire.

The front line of the Germans was found to be insecurely held, and not a great deal of trouble was experienced there, the attackers proceeding calmly and fearlessly to their work. There was no cessation of the German fire, both machine-gun and artillery, but the troops swept forward in spite of it. On the left the 28th Battalion was having a rather difficult time. Strong points were very numerous and were being held with determination. The foe was powerfully organized against the attack and poured a galling fire into the advancing Canadians. It appeared

for the moment as if the opposing forces were too strong to be overcome without a delay that might imperil the entire operation. It was only after the fall of their leader that the Germans gave way before the onward rush of the Canadians.

Through it all the Canadians had never wavered at any point, and such was the spirit of the men that they could not be held back. The Germans retired to the sunken road, but here again they were pursued by the relentless invaders. Cold steel was used freely and the ground was strewn thickly with German dead. The enemy artillery had been informed of the unexpected extent of the Canadian advance and let loose a torrent of fire. But the storm of shell and shrapnel came too late to stem the advance, for, by this time, all the objectives had been gained. To make the position further secure against enfilade fire and also against the expected counter-attack, an extension to the trenches to about three hundred yards to the left was secured. In addition to this work, which was carried out by the 28th Battalion, parties of the 31st Battalion worked closer to the outskirts of Courcelette. From here observation was had of the village itself. Both brigades were keen on further continuing their successes and pushing out to the village; but they had for the present to rest content with their laurels, having already accomplished a good deal more than had been expected of them.

Aeroplanes hovered overhead and were all day in contact with the infantry. Headquarters had thus been kept in constant touch with the progress of the battle, and finally were informed that the whole of the objectives had been secured and that patrols were being sent out towards Courcelette. Then came the order for the capture of the village; and in the action that followed the gallant Canadians were to add new lustre to the reputation won at Ypres, Festubert, Givenchy, and Sanctuary Wood.

4. The Capture of Courcelette

The famous victory of Courcelette, which was destined to take a prominent place among the brilliant achievements of the Canadians during the war, was one of those affairs in which individual courage showed conspicuously. In this struggle Canada won undying credit for the dash and valour of her citizen soldiery, and, according to the evidence of the British authorities, no troops engaged on all the fronts did finer service than the French-speaking soldiers of the Dominion. Of this sudden, eleventh-hour addition to the programme of attack Sir Douglas Haig said that it was "probably the most effective blow yet dealt to the enemy by British troops."

The Sugar Refinery had been taken by an impetuous attack, aided by the tanks, and the third line of the German trenches had been captured. The completion of their allotted task had brought the Canadians abreast of other parts of the British army attacking on the six-mile front from Pozières to Leuze Wood. The high ground between the Combles valley and the Ancre river was gained, and in pushing on and capturing Courcelette in a splendid rush the Canadians overcame a force of much greater strength than their own. By this operation the somewhat crooked British line was straightened out and German salients were smoothed away upon a new front. More important, perhaps, than the actual victory itself was the effect it had upon the *moral* of the German troops and their subsequent conduct. Indeed, the capture of the village was a vital necessity for further operations, more particularly with respect to the storming of the strongly fortified and highly important town of Thiépval. The value of the position may be realized somewhat when it is remembered that the Germans, on the night of the capture, launched seven violent counter-attacks against it, all of which were repulsed.

In such circumstances as these, it should be borne in mind, comes the greatest test of the courage and resourcefulness of the defending forces; for the giving up of even one small sector might easily have disastrous effects upon others. But in this, as in all other periods of stress, the Canadians showed that they knew but little of retreating and, where they were momentarily compelled to give ground before superior numbers, they immediately reorganized and recovered any of the positions which had been wrested from them. In the Second Battle of Ypres the Canadians had demonstrated that they were made of the sterner stuff that does not brook defeat, and once again they were to prove their courage. The toll exacted was heavy, but they paid it without flinching. And in the fight for Courcelette was shown the restless fire in the nature of the French-Canadian soldier, for here he was given an opportunity of which he was not slow to avail himself.

The work of the morning around the Sugar Refinery had been in the hands of the 4th and 5th Canadian Brigades, while the 6th had been held in reserve. It probably was foreseen that the morning attack might develop to the extent it did and that crowning success might be achieved by pushing forward the operation in such an event. It was, however, well on in the afternoon of September 15th when the reserve brigade understood how well their comrades had done and they themselves were ordered forward to take, if possible, the village of Courcelette itself. The 5th Brigade was impatient to get into the fray, for its battalions had during this time been under heavy shell-fire from the enemy, and until orders were received there was no opportunity for them to do anything but remain quietly in their trenches. However, they felt that there were to be important happenings in which they were to play a conspicuous part, and when they were finally ordered up there

was an eagerness to be in it that boded ill for any of the enemy who had the temerity to offer battle. The brigade was in command of Brigadier-General A. H. Macdonnell, C.M.G., D.S.O., who, with his battalion commanders, had carefully watched the events of the day, and who was ready for the emergency when it came. At 3.30 in the afternoon the detail for the advance was given out and an hour and a half later the four battalions of the brigade were on their way to undertake the tasks allotted to them.

Three battalions composed the actual storming party, and one, the 24th Battalion (Victoria Rifles of Canada), was held in reserve. The 22nd (Montreal) was given the right of the line, and the 25th (Nova Scotia) the left, with the 26th (New Brunswick) supporting them. The attack was to be made so suddenly and the importance of getting on to the objective without delay was so great, that the 22nd and 25th Battalions were not, if it were found possible to avoid it, to allow themselves to be held up by any strong points in their path, but were to force their way past, and to leave these positions to be dealt with by the New Brunswick battalion.

The men went forward in four waves, closely following the barrage. There was no wavering when the German counter-barrage was encountered and there was not the slightest hesitation at any point. According to the arrangement, the 25th Battalion was to enter the village to the left and the 22nd Battalion to the right of the main street, the adjoining flanks of the two objectives being marked by a church, the spire of which had so far withstood the shelling and was still visible. Despite the intensity of the fire which was directed against them, the troops sprang eagerly to their tasks, shouting and singing as if they were off on a holiday instead of marching through peril into still greater peril. The barrage was managed with consummate skill; the men showed excellent discipline;

Canadian Official Photograph

MAJOR-GENERAL A. H. MACDONELL, C. M. G., D. S. O.

no attempt was made to rush precipitately forward, and they advanced precisely as they had been instructed. The 22nd Battalion, with the intrepid Lieut.-Colonel Tremblay in command, moved forward on the right. Two companies covered the frontage of about 900 yards; two companies followed at a distance of 150 yards; and behind these again came two companies of the 26th Battalion, which was to do the necessary "mopping up" in order, as has been said, that the attacking battalions might not be delayed in their forward movement.

Even under the most favourable conditions it is a difficult matter for long lines of troops to keep in touch in advancing against an enemy, and on this occasion it was nothing less than a marvel that they were able to do so. The Germans would have been quick to take advantage of any gap that appeared, and if there had been one, would have been able to thrust in a wedge. For a moment it appeared that they might have the opportunity, for, on their left, there was a slight interval between the 22nd Battalion and the 25th. The flanks of the two battalions were quickly connected and the advance continued without interruption.

As it happened, the heavy barrage that the Germans laid down proved their own undoing, as the defenders, believing the fire to be impassable for any troops and being themselves in some danger from it, took to their comfortable dug-outs. In these dug-outs, as a matter of fact, were two battalions of the enemy who were routed by quite a small body of attackers. The irresistible advance of the French Canadians astonished even their own officers. At one point six men charged with the bayonet some forty Germans, who surrendered rather than face the cold steel. In fact the Germans thought that the attack on the Sugar Refinery and near-by trenches had concluded the venture for the day, as, indeed, it was originally planned that it should. They did not anticipate this second

charge, which came just before dusk. In their deep dug-outs they took refuge from a sudden outburst of shell-fire, and, as the fire lifted, the Canadians were at their doors. Some of them were so satisfied that they were secure that they were surprised in the act of eating their supper. The battalion which took the eastern end of the village had got up just in time to deploy for the attack before the moment set for it, and then rushed across the open and under the German curtain of fire. The officers could not give detailed instructions to their troops before they went forward. They had to trust to the intelligence and initiative of the men, and they did not trust in vain.

Turning corners and dodging in and out of the buildings and other positions that offered some cover, the Canadians cleared the streets of the Germans and saw that the dug-outs and machine-gun posts were emptied. Had the Germans been given another half hour they would have been able to organize their defence more effectually. As it was, many of them were caught helpless in the cellars. One boy, nineteen years old, delivered a dug-out of forty of the enemy, according to the story told by his comrades, and marched them away as his prisoners. Two German doctors, who were caught with the rest, worked like Trojans looking after their own and helping to look after the Canadian wounded. They objected to being kept under guard, saying that they were medical men and not combatants; but there were too many of their friends around for them to be allowed the freedom they desired.

Among the prisoners taken by the French Canadians were two officers, one a baron and the other a count. The baron did not like being forced to associate with the other prisoners, or being sent back to the rear with them, especially as the Germans were by this time subjecting the position to severe shell-fire. So the commanding officer gave him half an hour to

BRIGADIER-GENERAL T. L. TREMBLAY, C. M. G., D. S. O.

think about it. In telling of the incident Lieut.-Colonel Tremblay said:

"I asked him if the Germans respected a Red Cross flag and he said, 'Certainly!' So I gave him one which had been flying over some wounded. He handed it to one of his men, who waved it vigorously. But Fritz did not respect the flag, and the little column of wounded and prisoners, acting as stretcher-bearers, was driven into the sunken road. The baron tried to run away. For a time we lost him, but we found him later. He had been very arrogant to begin with, but toned down later. I might add that the two German doctors we took behaved extremely well in looking after the wounded."

The fact that the baron was wounded while under the protection of the Red Cross flag may have had something to do with the "toning down."

The loss of life among the German soldiers was heavy and it was apparent that they were thoroughly demoralized by the fierceness of the attack. The 22nd Battalion did not stop long enough in the fighting to take charge of all the prisoners, but left them to the mopping-up parties. In any event they had too much to do in clearing the ruins of the houses of armed parties, which were only overcome after hand-to-hand fighting. By 6.30 in the evening that part of the village which was their objective, and which stretched from the main street on the left to the sunken road on the right, was in their hands, and, a quarter of an hour later, they had established themselves beyond the stone quarry on the north-eastern end of Courcelette.

All through the attack, as has been noted, practically everything had to be left to the resourcefulness of the individual, for it was clearly impossible for any definite plan to be adhered to in street-fighting of this character. But it was the sort of fighting that these men preferred; they preferred it, at any rate, to trench fighting, and they left nothing undone in show-

ing that they were masters of the situation. The clearing of the village was a difficult matter, but it was completed without loss of time, for the men realized that there were certain to be counter-attacks and that perhaps the heaviest and hardest fighting was ahead of them.

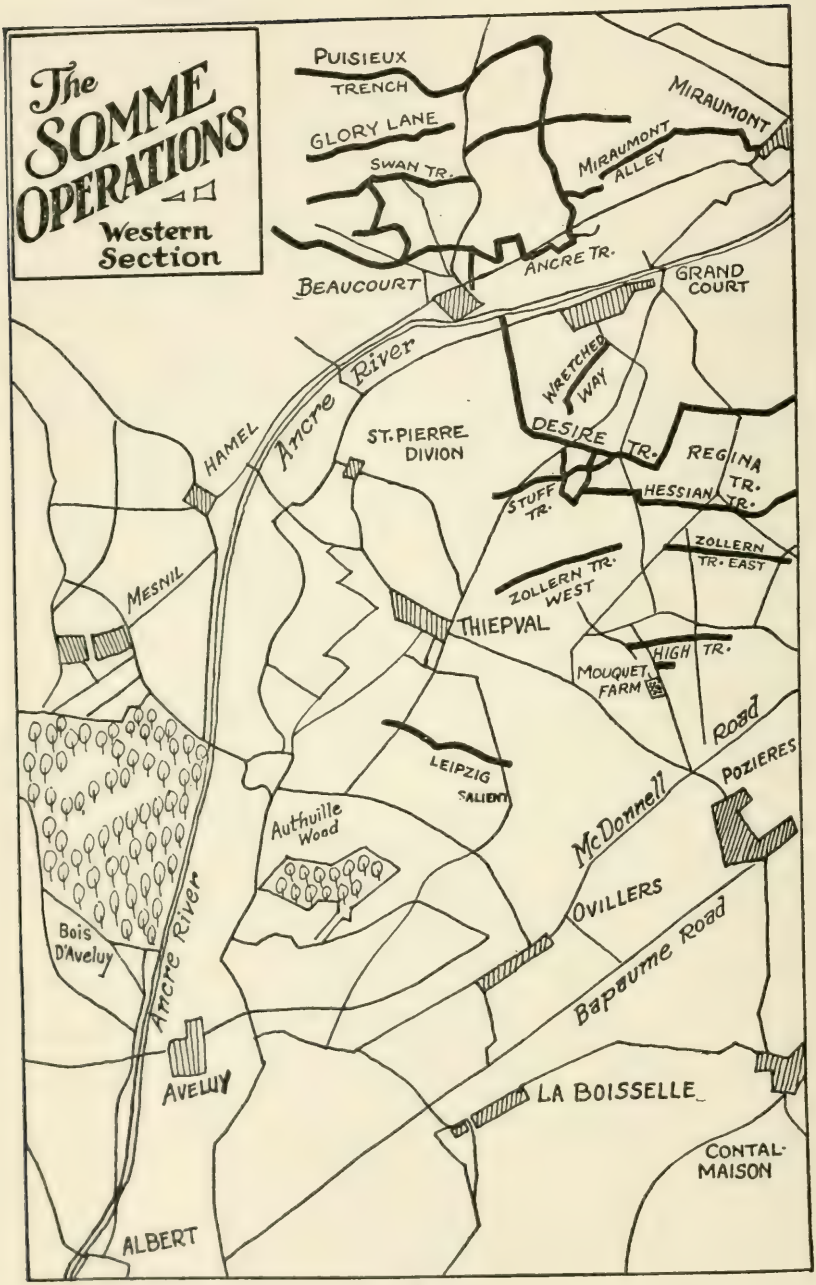
On the left the struggle was of much the same character. The objective set for the men of the 25th Battalion, the men from Nova Scotia, was the larger part of the village west of the main thoroughfare. The first wave of the attack, under the command of Lieut.-Colonel E. Hilliam, consisted of two companies and was spread over a frontage of nearly half a mile. Necessarily, in order to cover this frontage the men were extended at much greater than the usual intervals; and here again the danger presented itself of their losing touch. But communication was successfully maintained and the men did not falter. They pressed on with determination, and, considering the heavy shell-fire through which they were compelled to pass, with comparatively few casualties. It speaks volumes for the intelligence of these Nova Scotians that they were able to preserve their line with such regularity, for every yard that they traversed was broken ground. Shell holes and mine craters were on every side. Under such conditions it was extremely difficult to preserve such a formation that no weakness in the line could become apparent to the enemy; but there was no such weakness.

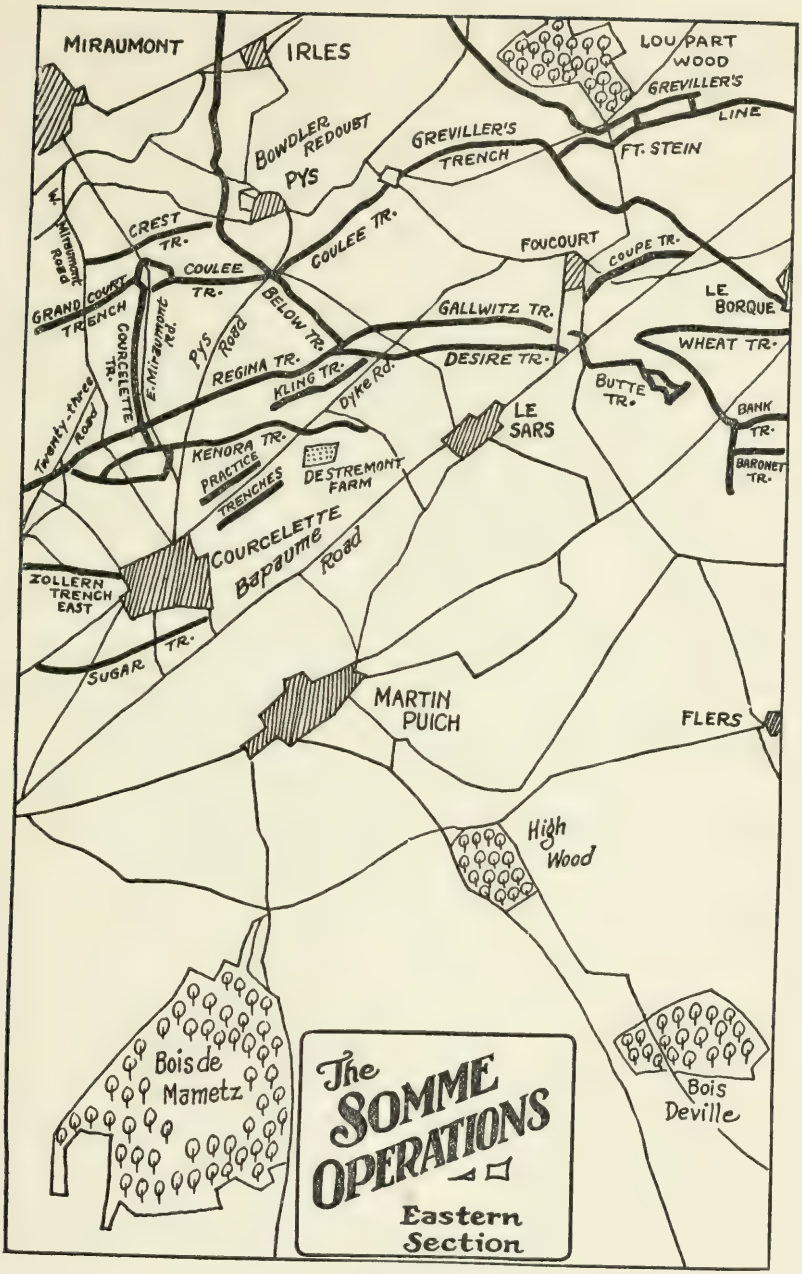
The machine-gun fire became more and more deadly as the men neared the outskirts of Courcelette. There was no cover to be obtained and there must have been very heavy casualties had the Canadians been advancing in any other formation. As it was there was nothing to do but to dodge from one shell hole to another and to continue the forward movement whenever there was a possible chance. There was still plenty of time, the advance having been so rapid that

the moment set for the final assault on the village had not yet been reached. However, further exposure to the merciless fire was not considered necessary or advisable, and when the men were two hundred yards away from the outskirts of Courcelette they were given the order to charge. They needed no urging, and, with a cheer, they swept forward. One machine gun was captured, but the Germans managed to carry off several others as they retreated. They succeeded in doing this, however, only at the cost of enormous loss of life; for the barrage was now playing upon this line and it was impracticable for the Canadians to follow the enemy through it. When the barrage did lift, a few moments later, the Nova Scotians enthusiastically jumped forward to complete their work, and after a further series of hand-to-hand encounters went through the village, crossed the railway track, and carried on up the hill until nearly at the top, where they dug themselves in in an east to west line. By seven o'clock they were in their new position and had consolidated it. The Germans seemed to be disappearing as fast as they could get away from the scene of their defeat, and the temptation to follow them was strong; but the discipline was good, and there was no attempt to disobey orders by pushing on after the fleeing enemy.

It was some time before the Germans found out where the 25th Battalion had dug itself in, so admirably had its position been located. They had been shelling the village and had reduced many parts of it to dust. When they did get a little better idea of location, they shelled a dressing station and succeeded in wounding the doctor in charge of it. The fact that the 25th had dug itself in just below the crest of the hill undoubtedly saved it many casualties.

No sooner were the enemy's positions captured than the work of consolidating them and strengthening the defences was undertaken by the engineers.


The SOMME OPERATIONS
Western Section
PUISIEUX TRENCH
GLORY LANE
SWAN TR.
MIRAUMONT
MIRAUMONT ALLEY
BEAUCOURT
ANCRE TR.
GRAND COURT
WRETCHED WAY
DESIRE TR.
REGINA TR.
HESSIAN TR.
STUFF TR.
ZOLLERN TR. EAST
ZOLLERN TR. WEST
HAMEL
Ancre River
ST. PIERRE DIVION
MESNIL
THIEPVAL
HIGH TR.
MOUQUET FARM
Road
POZIERES
LEIPZIG SALIENT
McDonnell
Authuille Wood
OVILLERS
Bois D'Aveluy
Ancre River
Bapaume Road
AVELUY
LA BOISSELLE
CONTAL-MAISON
ALBERT


MIRAUMONT
IRLES
LOU PART WOOD
GREVILLER'S LINE
BOWDLER REDOUBT
PYS
GREVILLER'S TRENCH
FT. STEIN
W. MIRAUMONT Road
CREST TR.
COULEE TR.
COULEE TR.
FOUCOURT
COUPE TR.
LE BORQUE
GRAND COURT TRENCH
E. MIRAUMONT Rd.
P/S Road
BELOW TR.
GALLWITZ TR.
WHEAT TR.
REGINA TR.
KLING TR.
DESIRE TR.
BUTTE TR.
BANK TR.
BARONET TR.
Twenty-three Road
Dyke Rd.
LE SARS
KENORA TR.
PRACTICE TRENCHES
DESTREMONT FARM
COURCELETTE
Bapaume Road
ZOLLERN TRENCH EAST
SUGAR TR.
MARTIN PUICH
FLERS
High Wood
Bois de Mametz
Bois Deville
The SOMME OPERATIONS
Eastern Section

Field companies and pioneers, working under heavy artillery fire, accomplished wonders. Strong points were constructed and nearly two thousand yards of communication trenches dug. Of the daring of these soldiers not too much can be said in praise. The work at Courcelette fell to the 2nd Pioneers, and both Lieutenants McGhee and Davis acquitted themselves with conspicuous gallantry on the occasion, while engaged in marking out the communication trenches.

Further attacks of a more local character for the purpose of improving the positions were engaged in and carried to a successful conclusion. For the whole operation the Canadian losses were not disproportionate to the results achieved. The day had seen a signal victory won over the enemy, and the men, exhausted as they were, looked forward to others of a like character.

There were hundreds of cases of gallantry and devotion to duty worthy of being recorded. The following reference to Private Camille Shoulle, who died during the great advance, is worthy of being recorded here: "He was a stretcher-bearer and while binding the wounded after the capture of the position was himself severely wounded in the shoulder. His wounds were dressed, but he refused to be evacuated and immediately continued his work of administering to the wounded for the remainder of the day, and during the night. In the morning he was again wounded, this time through the leg, but he again refused to leave. Finally, about noon, while he was actually dressing the wounds of another man, this gallant, gentle soldier was shot through the heart and killed. His general has said of him, 'Greater devotion to duty I have never seen.'"

The Canadian *communiqué*, dealing with this phase of the battle of the Somme, refers to the desolation of such villages as Courcelette, and of the particular

ground over which the Canadians fought on this day it says:

"Just below Pozières, and still below the summit, runs the line of trenches first occupied by the Canadians. These are in the midst of the ground which has most suffered. Here is the acme of desolation. No grain of surface soil remains undisturbed. There is no room for a fresh shell hole. Nowhere is the power of modern artillery or the thoroughness of preparation better exemplified. We have literally blasted our way forward. Ruin appears not only in the devastated earth and the crushed houses, but also in the sadder waste of human life. This is all ground sacred to the memory of our dead. Also in the scarcely defined trenches of the enemy the German corpses lie thickly."

While, as will have been seen, the 22nd and 25th Battalions delivered the actual assaults on Courcelette, the brilliant work of their sister battalions, the 26th of New Brunswick and the 24th (Victoria Rifles of Canada), must not be overlooked. The 24th Battalion worked on heroically throughout the whole operation, having assigned to it the arduous duty of "carrying" for the brigade. The men were denied the much-desired privilege of actually engaging the enemy, but they were constantly under fire. That the assault could have been so successfully delivered if they had not so faithfully performed their most dangerous part, it is, of course, impossible to conceive. That they were undaunted in their efforts and undismayed by the dangers surrounding them is shown, perhaps, most conclusively by the fact that, of their officers, no less than nine were accounted casualties. Later, in the holding of the ground gained, this fine battalion showed its heroic qualities.

Although denied the opportunity of participating in the first attack, the 26th Battalion had a rôle to play, the importance of which cannot be overestimated.

This battalion was under the command of Lieut.-Colonel A. E. G. McKenzie, and to it was assigned the task of "mopping up." It followed the 22nd and 25th Battalions in the attack, and, naturally enough, had to cross the barrage laid down by the Germans in an effort to break up the whole advance. Its duty was to attend to any of the enemy who, by hiding in their dug-outs, had escaped the observation of the Canadians who had gone forward in the first waves, and who, by reason of their position in the rear of them, were most dangerous combatants. In many, many instances, also, German soldiers who had already surrendered and who had been ordered to find their way to the rear, had repossessed themselves of arms and had treacherously turned upon those to whom they had been so glad to surrender a few minutes before, and who now had no time to deal with them as they properly deserved. These men fought to the last, but to overcome them was only an incident in the advance of the New Brunswickers, who were pushing on to the support of their victorious comrades in front. All night long, after the successful advance, and during the next day the work of cleaning out sniping posts and disposing of hidden enemies continued. The fighting was, for the most part, hand-to-hand, with bomb and bayonet, and, although the battalion suffered heavily, a very large number of prisoners fell into its hands. And so well was the work carried out that when night fell Colonel McKenzie was able to post two of his companies to the support of the 22nd Battalion and two to the 25th. The fighting had been severe and this assistance was most timely.

As a matter of fact much of the hardest fighting — what is usually the most serious fighting — remained for the following few days, desperate counter-attacks being launched by the Germans. In an effort to regain the lost ground the 45th German Reserve

Division was hurled against the front held by the Canadians, the attacks continuing for about a week. No less than eleven of these counter-attacks were launched on the 16th of September, seven of them against the French Canadians. Feverishly the men worked, consolidating the positions acquired at such cost and against such odds. Confident that the enemy would realize that he had been outwitted as well as outfought, the Canadian Command immediately reorganized the line. The 18th Battalion from the 4th Brigade and the 27th from the 6th Brigade were despatched as reinforcements to the much tried 5th Brigade. The 4th Brigade held Gun Pit Trench, with the 5th on its left; and the 8th was in position along the Mouquet Farm sector. The 15th (Imperial) Division had succeeded in pushing its way into Martinpuich on the right of the Canadians; but on the left the 3rd Division had not been able to penetrate the enemy defences to such an extent, a formidable trench system proving temporarily an insurmountable barrier.

Courcelette was in the hands of the Canadians, but it was an exceedingly dangerous position, and the night of its capture was an uncomfortable one for the victors. The enemy did not, however, attempt anything in the way of counter-attacks during the night, being apparently satisfied to reorganize his troops and to shell the Canadian frontage with high explosives and shrapnel—unlimited quantities of them. However, fresh troops were available, and attack after attack was hurled against the line from the direction of Destremont Farm. The French Canadians were again exposed to the heaviest of the fighting; but with the support of the New Brunswick troops and some of the Nova Scotians they were able, after a difficult struggle, to drive the enemy back without having to give up any of the ground. The main body of the Nova Scotians were no less hotly attacked; but the

battalion was in strongly consolidated positions beyond the north-west outskirts of the village and was able to beat off four of these onsets. Foiled in the manœuvres against these two frontages, the Germans, evidently in desperation, turned their attention to the position between the Quarry and the Bapaume road. The 26th Battalion had taken over a portion of this line between the Cemetery and the Bapaume road, and again the Germans met defeat in six counter-attacks which were launched with great determination and with numbers vastly superior to the defenders of the position.

Gun Pit Trench, which had been held by the 4th Brigade, was taken over by the 46th (Imperial) Infantry Brigade on the 16th of September; but it was not until the night of the 17th that the 5th Brigade was sent back for a well-earned rest. The Germans were evidently becoming discouraged, their counter-attacks having proved fruitless of results, and they contented themselves for the most part with heavily shelling the Canadian positions and with sniping. No sooner had they evinced the disposition, however, to take things more quietly than the Canadians began a series of attacks on their own account. In front they were faced by a maze of trenches; but on the left the 22nd and 24th Battalions made a gallant attack on the afternoon of the 17th. This was partially successful, and much valuable ground was gained; but heavy machine-gun fire on the right made it inexpedient to go further. Not to be outdone the Nova Scotians also threw forward an attacking party; but the objective sought was too strongly held, and they were forced to fall back to their old positions. The enemy, observing this withdrawal, sought to press home a supposed advantage and launched a fresh series of counter-attacks. These became more and more serious in character, notwithstanding the fact that the 26th Battalion was hurried in to the support. The tide of the

battle was definitely changed when the 4th Battalion, of the 1st Brigade, coming up to the relief, arrived at the moment of one of the most severe of the attacks. The Germans were then hurled back with immense loss.

Thus was concluded the fighting for Courcelette and for the firm establishment of the Canadian position there, the Germans not again succeeding in penetrating the village or the position where it stood until long after the Canadians had been withdrawn from the Somme front.

The 2nd Division was relieved by the well-tried 1st Division on the 18th, and the battle continued for further gains, the Germans being slowly but surely driven back. The fighting throughout the three days had been of the most desperate character; but the ground gained was of such immense importance that the expenditure of life was considered to be fully warranted. In the struggle the Canadian casualties totalled 58 officers and 1,267 other ranks in the 5th Brigade.

The capture of Courcelette and the holding of it will remain one of the outstanding monuments to the courage and fighting qualities of the Canadians. The Germans in these few days had fought with the courage of despair, and had resisted desperately and with determination the attempts to wrest their positions from them. As evidence of this it may be stated as an authentic fact that bodies of machine gunners were found chained and padlocked to their guns.

The Canadians were the recipients of the congratulations of the commander-in-chief, and General Byng, replying to a message of appreciation from Sir Robert Borden, premier of Canada, said:

"On behalf of the officers and men of the Canadian Corps I thank you and your colleagues for your kind and encouraging message. I am proud of the Cana-

dians under my command and of the skill and courage with which they have fought."

5. Fabeck Graben, Zollern Trench, and Mouquet Farm

During the whole of the Somme fighting, as has been pointed out, the Germans were admirably protected from artillery and rifle fire by reason of the pits, trenches, and tunnels they had constructed. While there is every reason to believe that they were confident that their original front line of defence, close upon Albert, would be sufficient to stay the onset of the British, still they had prepared for further defence in case the unexpected happened. And since the 1st of July enormous numbers of men, who could not, without congesting the lines, be utilized in the actual combat, had been employed in throwing up defensive positions — line after line of them — for miles behind the front line.

In perhaps no sector of that vast field of slaughter had such elaborate plans for defence been carried into effect as in the district where lay Mouquet Farm — that fortification of so much ill repute. The Farm was not originally a farm in the generally accepted meaning of the word. It consisted of a number of staunchly constructed outbuildings, which a little earlier in the war had been most strongly fortified, and which were surrounded by a nest of cleverly concealed machine-gun posts, the whole being protected by almost every barrier against attack which could be devised by human ingenuity. In addition the Germans had constructed innumerable tunnels leading from their trenches, in the rear, well into No Man's Land. The system was well devised, and many weeks passed before it was understood in its completeness by the Allied forces. The German tunnels ran in many cases to trenches firmly held far behind

the actual scene of the fighting and in all cases well to the rear. From these tunnels there were several means of exit. So that here the Germans remained with a sense of greater security than in other parts of the line. If one entrance was closed by bomb or shell, the occupants were able to go in almost absolute safety to another. Not until all entrances were blown in were the Germans rendered ineffective. As will be readily understood, attacking troops were in constant danger of sniping and machine-gun fire from the rear, and the Canadians had had enough of that sort of thing in the Ypres salient. Both the Imperials and the Australians had fought over the ground, but at the time all the advantage of observation was with the enemy, and it was impossible to hold the position with safety. Nor was there anything to be gained by permanently occupying it until its strategical value was greater. It lay in the path to Thiépval, and, in the general advance, had to be taken, if possible, simultaneously with the capture of Courcelette. However, it was ground of a most difficult nature to gain and more difficult still to hold.

Behind the Farm lay Zollern Trench, East and West, with Zollern Redoubt in the centre; and to the 3rd Canadian Division was allotted the task of making a general attack in the direction of this trench, so that the left flank of the 2nd Division might be protected. It was not the intention to do anything more than, by making a feint, to draw the attention of the enemy, as far as possible, from the important attack on Courcelette, and in this the division was successful beyond expectations.

Major-General L. J. Lipsett, C.M.G., was in command of the division. The troops moved from the Ypres salient on September 7th, and, after gathering at the reserve area at Rubempré, came into the Somme area on the 12th. In their first position they had, on their right, the 2nd Canadian Division and, on their

left, the 11th (Imperial) Division. Two brigades were left behind in readiness to be thrown into action, the 7th at Vadincourt and the 9th at Herissart. The 8th Brigade, under Brigadier-General J. H. Elmsley, D.S.O., first went into the trenches where Pozières had stood. The brigade was made up of the 1st, 2nd, 4th, and 5th Canadian Mounted Rifles, the 2nd and 4th moving into the front line trenches, the 1st being in support at the Chalk Pits, and the 5th in reserve at La Boiselle.

From the moment of taking over the position the brigade was subjected to heavy shelling, the Germans evidently having become aware of the fact that new troops were arriving in the sector. Against any but experienced and determined fighters the first enemy onslaughts might easily have been successful. The Canadians came into their positions in inky darkness. They were, of course, entirely unfamiliar with the ground, and what had once been trenches could no longer be called by that name. As best they could, they identified the sectors to which they had been detailed, having to go through the ordeal of a gas attack in addition to the heavy bombardment. When night fell, the Germans, having the decided advantage of a perfect knowledge of the country, launched a sudden attack on the left of the divisional frontage. This sector was occupied by the 2nd Mounted Rifles under Lieut.-Colonel Bott. It was but a repetition of the fighting which had been occurring for several days, and after a desperate encounter the Germans were driven back, leaving the field of battle strewn with their dead.

Such was the introduction of the 3rd Canadian Division in the Somme area, and during its entire stay it was in the forefront of the strife, playing an important part in the great successes of the Allied forces along the whole battle-front.

The remaining half of the 8th Brigade, consisting

of the 1st and 5th Battalions, also had an early experience in the fighting. They relieved the other two battalions, the 2nd and 4th, in the front line, and bore the brunt of a counter-thrust which followed an attack which had been launched by the 11th (Imperial) Division on the evening of the 14th. The Germans had evidently reached the conclusion that an attack on the sector held by the Canadians offered more chance of success than on that held by the Imperials; but they were to be grievously disappointed. Again the two Canadian battalions were ready, and not only ready, but eager to be at it. The result was that the reception given the enemy was such a warm one that he was driven back to his own lines with great loss of life.

It might appear at first sight that the part that the 3rd Division was to take in the major operations, beginning on the 15th, was not a particularly important one; but even a superficial review of the situation will show that this was not the case. In order that the attack on the approach to Courcelette might be made more effective it was decided to establish a strong position on the front and to the left of the village. This being done, the Canadians would be able to direct a telling enfilade fire on the German positions. But for this effort the 2nd Division would have been under both frontal and enfilade fire.

To accomplish this purpose of protecting the left flank of the 2nd Division, the 3rd Division had orders to launch an attack against the strongly held Fabeck Graben and Zollern Trench systems and establish a post on the right. They were further to raid the trenches around Mouquet Farm, so as to relieve pressure from the Germans there. This task was allotted to the 8th Brigade, the attacking battalions being the 5th Canadian Mounted Rifles (Lieut.-Colonel Draper) on the right and the 1st Canadian Mounted Rifles (Lieut.-Colonel Andross) on the left. At 6.30 on the morning of the 15th a perfect barrage

was laid down by the artillery and the two battalions proceeded on their errand. Nothing could have been more successful than these attacks. On the right, the Germans, surprised by the swiftness of the advance, were forced back and the Canadian position was quickly consolidated. On the left, the 1st Canadian Mounted Rifles encountered but feeble opposition, so great had been the execution done by the barrage. The men hastily destroyed the shelters erected by the enemy and retired, as planned, to their original position. No sooner had this attack, which was largely in the nature of a raid, been successfully completed than the German artillery, believing that the Canadians were establishing themselves in the newly acquired positions, began a bombardment. The outstanding result of this was to complete the destruction of their own defensive works, the real object of the retaliatory fire being missed altogether.

So great had been the success of the attack along the entire Canadian frontage, the 4th and 5th Brigades on the right having also reached their objectives in the morning, that it was decided to push the advantage still further in the afternoon. The 2nd Division, as has already been noted, was to proceed to the capture of Courcelette itself. The advance was again to be protected on its left flank by the 3rd Division. The 7th Brigade, which had been resting, was sent into the line on the right of the 8th Brigade, the line held by the latter being shortened and thereby strengthened on the left.

The 7th Brigade was in command of Brigadier-General A. C. Macdonell, C.M.G., D.S.O., and was made up of the Princess Patricia's Canadian Light Infantry (Lieut.-Colonel Pelly), the 49th Battalion of Edmonton (Lieut.-Colonel Griesbach), the 42nd Battalion (the 5th Royal Highlanders of Canada, Lieut.-Colonel Cantlie), and the Royal Canadian Regiment (Lieut.-Colonel C. H. Hill). The "Princess Pats"

were on the right, and the 42nd on the left, with the 49th in support and the Royal Canadian Regiment in reserve.

It was planned that, if possible, Fabeck Graben, a strongly occupied trench system, should be occupied, and this being accomplished the objective would be a ridge overlooking Zollern Trench. Unfortunately this plan could not be worked out in its entirety. Despite the terrific shelling that the battalions were subjected to they reached the positions allocated to them at the appointed hour, and this in spite of the fact that they had, in order to reach them, to advance across practically open country in broad daylight. This was a notable achievement in itself, but the fighting which was to follow was of a most bitter character. The enemy had recovered from his earlier surprise and demoralization and was massed in great strength, presumably with a view to counter-attacking. However, both the 7th and 8th Brigades advanced to the attack at the same moment that the 5th, on their right, hurled its blow against Courcelette.

The first objective was gained without undue loss by both the 42nd Battalion and the Princess Pats. Fabeck Graben was, however, a different proposition, the Germans having massed an immensely superior force in this position, which was fairly bristling with machine guns. On the left, nevertheless, men of the 42nd pressed forward at the point of the bayonet. The Princess Pats fought with magnificent valour, but their right suffered most severely. Half of one company on their left reached their objective, joining up with the 42nd; but between them and the right there was a dangerous gap, which the Germans succeeded in holding. Scattered groups forced their way into Fabeck Graben here and there to the western side of Courcelette, where the 25th Battalion was stubbornly pressing its way forward. These heroic men were fighting desperately against enormous

odds to maintain their footing, but their position was one that tried all their powers of endurance. Finally, however, the 49th Battalion, in pursuance of its plan to gain the third objective, the ridge, advanced along the sunken road, the Royal Canadian Regiment taking its place in the original line held by the Canadians. The men of the 49th reached Fabeck Graben in time to relieve the situation and assisted in the consolidation there, it being impossible, in face of the enemy fire, both artillery and machine-gun, to advance farther.

While this was taking place the attack on Fabeck Graben, farther to the west, was proceeding, and there also the result was much in doubt for some time. To this operation the 8th Brigade had been assigned, but only one battalion, the 4th Canadian Mounted Rifles (Lieut.-Colonel H. D. L. Gordon), was employed. Disaster threatened the attacking party almost before it was well started on its advance. Two companies were employed, and one of these ran into a terrific barrage, almost half of its number being wiped out. The remaining company extended so as to cover the entire frontage, it being quickly perceived that the whole attack was doomed to failure unless this was done, and done without delay. The attack then continued as before, and, in spite of all the obstacles, the Germans in Fabeck Graben were routed. Connection was then established with the 7th Brigade and defensive works were thrown up so that there should be no interference from Mouquet Farm. In the evening the remaining men of C Company moved up with their comrades and took their places in the new line.

This attack, while only a part of the wide-spread forward movement, has been frequently referred to as one of the most brilliant bits of work on that memorable night, where wise leadership counted for so much. Had it not been for the excellent judgment shown it

would have been impossible to have occupied that particular portion of Fabeck Graben, and no one can say what the effect would have been upon the operations as a whole. As it developed, communication had been established with the 7th Brigade on the right, which had had a sufficiently trying experience. In addition to this, abundant precautions were taken to prevent any interference from the direction of Mouquet Farm, the Germans there being in ignorance of the fact that their barrage had done such execution and that it had come very near upsetting the calculation of the Canadians. Nor could they know that the operation had been carried out by what was comparatively a handful of men. Throughout the entire line, despite the reverses here and there, the success was magnificent and quite deserving of the congratulations of the commander-in-chief.

Bitter as the fighting had been during this fateful 15th of September, the 3rd Division was to go through even more thrilling experiences before being relieved in the line. The capture of Courcelette and Fabeck Graben cleared the way for an attack upon Zollern Trench, upon Zollern Redoubt farther west, and upon Mouquet Farm, which lay about half a mile almost directly south of the Redoubt. As has been already told, Mouquet Farm had been the scene of many grueling encounters, and on this occasion it was decided to make a stroke from the east side, rather than from the south. In order to ensure complete success it was hoped to wrest Zollern Trench East and also the Redoubt from the enemy, thus giving the Canadians a more permanent hold upon the Farm. When the situation was better understood and appreciated, the attack was recognized as a success from a general point of view, even though the whole design had not been carried to completion.

The 7th, 8th, and 9th Canadian Brigades were engaged in this operation on September 16th, the plan

being for the first named to occupy Zollern Trench; for the 9th Brigade, on the completion of this attack, to move against the Redoubt; and for the 8th Brigade to encircle the Farm from the east and north.

From the first, things went badly, and for the very good reason that the Germans had an enormous number of men massed in Zollern Trench preparatory to a counter-attack in force upon Courcelette. The 7th Brigade, occupying the right, had the Royal Canadian Regiment and the 42nd Battalion composing the first wave, with the 49th Battalion in support. All the afternoon the trench was subjected to a heavy bombardment, and at five o'clock, after a half-hour barrage, the first wave left their trench for the attack. The artillery preparations were magnificent, all that could have been desired; but, despite their enormous losses, the Germans still thickly manned their positions and met the oncoming rush with such a withering fire that the Canadians were forced to recoil. They fought stubbornly to gain a footing, but the odds against them were too great. The artillery exchange was so terrific that when an effort was made to send word to the 49th Battalion to hasten up, it was found that all the signal wires had been destroyed. In this emergency one company runner after another was sent to Headquarters, but none of them got through the barrage. Signals by rocket were also found to be ineffective.

Owing to the fact that this first operation was inevitably doomed to failure, the 9th Brigade could not get in its projected blow against Zollern Redoubt. Three platoons of the brigade were despatched to assist the 42nd Battalion, and the battle raged on. Brigadier-General F. W. Hill, D.S.O., who was in command of the 9th Brigade, continued to hope for success in order that his command might carry out its part, and the barrage was continued until 7.30. It was then recognized regretfully that the trench could not

be taken at this time without too great a sacrifice of life, and the two brigades withdrew.

While this temporary reverse was being suffered, the 8th Brigade was making satisfactory progress in its movement against Mouquet Farm. During the night Major Foster took out a party of the 2nd Mounted Rifles and, after an exchange of bombs, drove the Germans out of a trench on the north side. The Farm itself was entered and all the shelters and tunnels that could be found were destroyed. The gain was thoroughly consolidated and defensive positions were constructed completely encircling the position which had so long baffled occupation. During the early morning the brigade was relieved by a battalion of the 34th (Imperial) Infantry Brigade, and the line held by the 7th Brigade was taken over by the 9th Canadian Brigade.

For a few days following this the attacks were of a minor character. The Canadians, with the exception of the 1st Division and the 9th Brigade, were resting, but all along the line positions were being established from which further attacks might be launched. On the 18th of September the Germans sent out bombing parties, which were easily repulsed. The following day a more determined attack was made under cover of darkness, and the enemy succeeded in gaining access to the Canadian trenches. The 4th Battalion immediately counter-attacked and regained the positions with the exception of a few advanced posts. The Canadians were still better prepared for an attack that was hurled against the whole line on the morning of the 20th, the enemy being forced back with very heavy loss. A daring attack made by the 58th Battalion (Lieut.-Colonel H. A. Genet) and the 43rd Battalion (Cameron Highlanders of Winnepeg) of the 3rd Division met with remarkable success, the Zollern Trench being entered after severe fighting. They were subjected to four counter-

attacks; the position was bombarded with great intensity; and finally, after a tenacious resistance, they were forced to come back to their original line.

Meanwhile, in close sympathy and co-operation with the Imperial troops on either flank, the forward posts were being linked up and the trenches made more secure. The artillery was called upon to check heavy enemy fire on the sunken road on the 21st, but the Germans were successful in blowing up an ammunition dump at La Boiselle. Under the conditions of ordinary warfare any one of the operations of these few days would have been considered an enterprise of the greatest magnitude. On September 22nd, the 1st Battalion of the 1st Brigade attacked the maze of trenches situated to the east of Courcelette—a most difficult undertaking. The storming party was met by heavy machine-gun and rifle fire and an intense bombardment by artillery. Although many of the men were cut down during the advance, the remainder poured over the German trenches and secured the whole of the battalion's objective. More than sixty corpses of the enemy were counted in one portion of the position alone, and one officer and thirty-nine of other ranks were made prisoners, one machine gun being captured. On the same day also patrols from the 9th Brigade established posts in High Trench West. The Canadians at this time were holding a line from a point near Mouquet road in the Fabeck Graben Trench to North-west Courcelette, from there to North Courcelette, round the Quarry and east of the village towards Martinpuich.

The Canadian troops were anxious to push forward towards Le Sars line; and the 1st Division was instructed to work up the trench north of the Bapaume road to join with the 23rd (Imperial) Division, attacking north of Martinpuich. On September 24th the 1st Brigade was holding the Bapaume road to the north-east of Courcelette, and the 2nd and 3rd

"ORANGES"

Plucky French "Sweet Nells" bring fruit to thirsty Canadians up at the line

LIMBERING UP

Loading up the limbers with food for the guns

Canadian Official Photographs

Brigades were around the Quarry, north of Courcelette, and thence to Fabeck Graben Trench. Each day saw progress made, in spite of vigorous shelling by the enemy. The Canadians' new post on the Bapaume road was attacked by a strong enemy patrol; but this sortie was repulsed, although another attack gained the Germans a footing in advanced posts near the Cemetery.

And so, day by day, although there were temporary and local set-backs, — for the Germans fought hard and their resistance was in many cases formidable, — the line was being materially advanced. The 1st and 2nd Divisions went into the front line preparing for another general offensive in co-operation with the Second Corps, the purpose being the capture of the ridge running north-west of Courcelette to the Schwaben Redoubt. For the 2nd Division the objective was a new German trench north of Courcelette, and the 1st Division was to advance against the Kenora and Regina Trenches by way of the Zollern and Hessian lines, the objective of the 1st Division being shortened later to a point on West Miraumont road. A long-continued bombardment of the German positions had reduced the infantry resistance to a minimum, and at noon the great attack was launched on a frontage of nearly two miles. Preceded by a barrage of exceptional intensity the long lines of the Canadians advanced steadily over the uneven ground. The whole length of Zollern Graben was seized and occupied, and, without a pause, the assaulting waves pressed beyond, and, mounting towards the crest of the high ground north of Courcelette, they partially carried their second objective, the Hessian and Kenora Trenches, after several determined attacks. On the right the 29th and 31st Battalions encountered particularly heavy machine-gun fire; but they persisted and the Germans had to give way. Some of the Canadians even pushed beyond their objective and

entered Regina Trench, and actually secured a few prisoners. They did not, however, attempt to occupy this line.

During the night the enemy bombarded Courcelette and the whole of the front line heavily; and on the left the 2nd Brigade's operations were being badly hampered by machine-gun fire from the direction of Mouquet Farm. Information to this effect was sent to the 11th (Imperial) Division on the left, and towards evening they reported that they had cleaned up these enemy nests. On the morning of the 27th the 2nd Brigade attacked Hessian Trench and drove the Germans back towards Regina Trench, only to lose the greater part of their gain in a strong hostile counter-attack about noon. A fresh attack was made in the afternoon, and the whole of the hotly contested position was regained and held.

At 6.30 in the evening the Germans had withdrawn from their line between the Bapaume road and Courcelette Trench, and our patrols were busy establishing posts in North and South Practice Trenches, along the Dyke road and towards Regina Trench between East and West Miraumont roads. On the left, hostile reinforcements had arrived, and had driven the 14th Battalion, of the 3rd Brigade, from Kenora Trench to a line of defence some two hundred yards south-west.

And now, for the first time since the Canadians had participated in the war, Canadian cavalry patrols were employed to keep in touch with the enemy. When it was discovered that the last immediate German lines of resistance had been broken, some of the cavalry were ordered to patrol in the direction of Le Sars and Pys in order to establish the new location of the enemy forces. Two officers and twenty-four other ranks proceeded south of Courcelette along the Bapaume road. From this point, on the morning of September 28th, five different patrols crossed the

Canadian front line trenches and went forward into enemy territory. Two patrols, working in the direction of Le Sars, located Germans in Destremont Farm, over a mile beyond the Canadian lines. Another patrol penetrated north-east a distance of about 2,500 yards north of Courcelette, actually crossing Regina Trench before enemy snipers compelled them to turn back. In consequence of their reports the Canadian lines were promptly advanced, the 4th Brigade pushing forward one thousand yards to the north-east of Courcelette, fighting its way towards Regina Trench. While this was being done a fierce enemy counter-attack against Kenora Trench gave the Germans temporary possession of a sector of it, but equally determined hostile attacks against the Canadian position in Hessian Trench on a frontage of five hundred yards were repulsed with serious loss to the enemy.

On September 29th, at the break of dawn, a further strong attack upon Hessian Trench developed and was repulsed. At mid-day the 2nd Canadian Mounted Rifles, supported by an Imperial brigade on the left, attacked and captured the important German communication trench from Hessian Trench to Courcelette road, which was still occupied by the enemy. One officer and thirty-three other ranks were made prisoners. The captured ground was consolidated, and the position maintained, although the Germans counter-attacked a few hours later. It was apparent that the enemy was massing troops, and an intense bombardment by our artillery broke up several hostile formations and silenced the batteries under the cover of whose fire they were being massed.

On the evening of the 29th the 2nd Division occupied and consolidated a line from Destremont Farm and North and South Practice Trenches; and on the following day the 8th Brigade took over the 5th Brigade lines to Twenty-three road, the 4th Brigade being also in the front line. Preparations were being

made for a new offensive, the objective being Regina Trench.

There were hundreds of cases of individual daring during these days of attack and counter-attack. The fighting was furious all along the Canadian frontage, and so local in character in many instances as to make it impossible for the officers to be present to direct the operations. Thus all had often to be left to the initiative of the rank and file, and gallantly did they respond. One of the Canadian battalions had wrested a position from the enemy when two German officers and about twenty men undertook a counter-attack. A Canadian corporal advanced alone against the entire party and, after emptying his revolver, picked up one German rifle after another and discharged their contents against the advancing enemy. He accounted in this way for one of the officers and sixteen of the men; but, while he was shooting, the other officer attacked him with a bayonet, wounding him in the leg. The corporal shot him dead, and when the remaining attackers attempted to escape four of them met the same fate, and the fifth was taken prisoner. The corporal himself, although wounded in two places, remained in the trenches until his battalion was relieved.

6. Fighting for the Regina Trenches

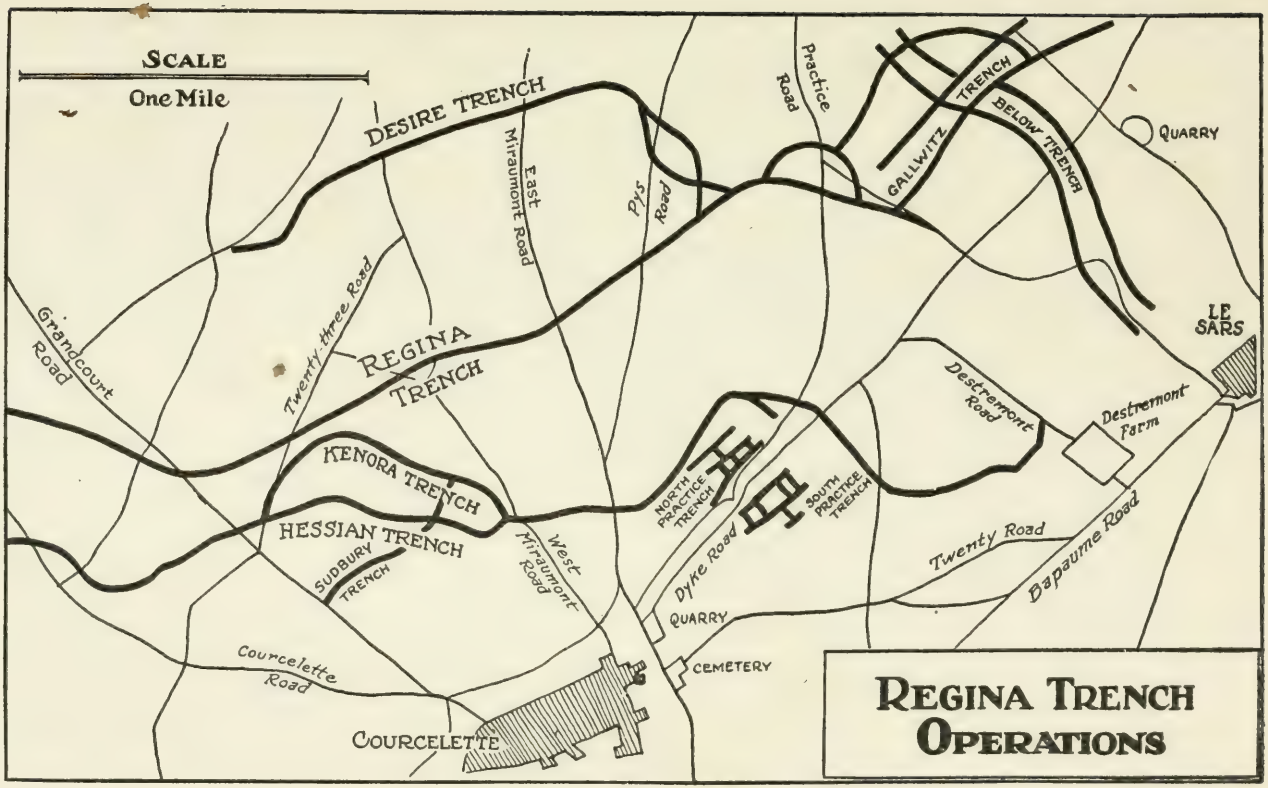
While, as has been seen, there had been some operations which were forerunners of the capture of Regina Trench and this trench system had actually been entered on a few occasions, the direct movement against these German positions was not begun in force until October 1st. Heretofore the fighting had been, to a large extent, of a sharp and decisive nature. By means of sudden rushes enemy strongholds had been penetrated and permanently wrested from the defenders; or a few days, at the most, had sufficed to clear the Germans from the trenches and redoubts.

But now commenced a sort of warfare which was vastly different in character. The enemy had retired to some extent, but he had evidently made up his mind that the positions in which he now lay concealed were impregnable. The whole country over which the Canadians were to battle, before they could claim finally that they had gained their objective, was a barren waste; nothing was to be seen in front but innumerable shell holes—not a tree standing in the immediate vicinity to serve as a landmark. The roads were shelled so incessantly that their appearance became changed each day. The Bapaume road, in particular, was a favourite target for the German gunners, and the utmost precaution had to be exercised in moving the troops and in bringing up the necessary supplies. The infantry was forced into inactivity for hours at a stretch; but the artillery on both sides never ceased. However, it became more and more noticeable as the days passed that the enemy guns were shelling less frequently than those of the Allies. As a matter of fact, when retaliatory fire was asked for from the artillery, the number of shells sent across to German territory vastly exceeded those sent back in reply, clearly indicating that the enemy was weakening rapidly. It was a hopeful sign, and gladdening to the men who had had repeatedly to face the Germans at a time when their artillery support had been far from strong. It gave them much encouragement as they waited through the hours, eagerly looking for the moment when they would again have the opportunity of personally encountering the foe. And there was to be ugly fighting for the Regina Trench, which proved a baffling stumbling-block. How many times certain portions of the trench changed hands before the enemy was permanently driven out will, in all probability, never be told. The Germans had massed their forces there, the best of their divisions being employed; and when they were

finally forced to relinquish their hold, the desperate character of the struggle was but faintly understood. The death toll during this month or more was appalling.

The Canadian line, when the attack was finally launched, ran from the north-western corner of Destremont Farm in a westerly direction, around the north of North Practice Trenches to the junction of the newly won Hessian Trench and Grandcourt road. From this point the frontage followed the Hessian Trench westward to a point near the Courcelette road, where the Second Corps occupied the line. On the right of the Canadians was the Third Corps. The objective was a line from Destremont Farm to the junction of Regina Trench and East Miraumont road, thence along Regina to a road running north and south near the corps' left boundary to the Hessian Trench.

Two divisions were represented in the attack: the 3rd Division by the 4th and 5th Canadian Mounted Rifles of the 8th Brigade, who were on the left; and the 2nd Division by the 24th, 25th, and 22nd Battalions of the 5th Brigade in the centre, with the 18th and 20th Battalions of the 4th Brigade on the right, the right flank of the last named battalion joining up with the Imperials. That the attack was not a success must be candidly admitted, the forces against the Canadians being so formidable that it was impossible to hold most of the ground gained even after the greatest effort. The Canadian Mounted Rifles, on the left, penetrated Regina Trench at several points, but eventually they were forced to retire to their original positions. The 5th Brigade, in the centre, was slightly more fortunate; for while it could not maintain the hold it acquired, it was successful in capturing Kenora Trench up to within sixty yards of the junction of Regina and in holding posts up to Courcelette Trench and the Miraumont road. On the extreme right the


SCALE
One Mile
DESIRE TRENCH
East Miraumont Road
Pys Road
Practice Road
GALLWITZ TRENCH
BELOW TRENCH
QUARRY
LE SARS
Grandcourt Road
Twenty-three Road
REGINA TRENCH
KENORA TRENCH
HESSIAN TRENCH
SUDBURY TRENCH
West Miraumont Road
NORTH PRACTICE TRENCH
SOUTH PRACTICE TRENCH
Dyke Road
Destremont Road
Destremont Farm
Twenty Road
Bapaume Road
QUARRY
CEMETERY
Courcelette Road
COURCELETTE
REGINA TRENCH OPERATIONS

4th Brigade reached a position in line with the loops around the North Practice Trenches.

The attack was made at 3.15 in the afternoon. The 20th Battalion advanced under open fire, which came from the direction of Pys and Le Sars. There was no protection to be obtained except from the shell holes: the men dodged from one to the other of these and finally dug themselves in slightly north-west of their objective. The 18th also established itself after advancing; but the 22nd Battalion met with misfortune. It was subjected to a grueling machine-gun fire, against which it was altogether unable to advance. A very few men did succeed in reaching the enemy trench, but of these all who were not killed were taken prisoners. Only a remnant of this gallant battalion, practically all wounded men, succeeded in getting back to their own lines. The 26th Battalion (New Brunswick) took over their part of the line. The 25th Battalion (Nova Scotia) passed Kenora Trench, but, reaching the enemy wire, was caught in a hail of machine-gun fire, and of this gallant band of attackers only a few returned. The 24th Battalion was in no better state. The right company crossed Kenora Trench and got into Regina Trench, east of the intersection of Kenora. The centre and left companies also succeeded in making their goal with their left flank in Twenty-three road. The difficulty was that the battalion was isolated, its right being separated from the 25th Battalion by an enemy post which defied capture, and its left being out of touch with the 5th Canadian Mounted Rifles for the very good reason that that battalion had not been able to come up. The men of the 24th fought doggedly on, but were mowed down by machine-gun and rifle fire from the front and both flanks. They stubbornly contested the German counter-attack, but were forced to give way, fighting foot by foot, finally retiring to their original line in Kenora Trench. Nor was the 26th Battalion,

which had taken the place in the line previously assigned to the 22nd, able to give any assistance, even though it perceived that the situation was a most critical one, having less than fifty effectives available.

Matters also went badly with the 8th Brigade on the left. Both the 5th and 4th Canadian Mounted Rifles encountered a network of wire entanglements, which the artillery had not succeeded in demolishing, and in the teeth of galling machine-gun fire they were, with some exceptions, unable to cut their way through. On the left the 4th succeeded in bombing down Regina Trench nearly as far as the West Miraumont road, but about six o'clock in the evening a heavily reinforced counter-attack drove them back to Hessian Trench. The fighting had been hand-to-hand, of the most desperate character, and it was difficult to ascertain just what the situation was until late in the afternoon. On the right the Canadians were attempting to establish communication with the Imperials on their right; in the centre they were fighting magnificently to hold what little they had gained; but they had been gradually driven back on the left, owing to the intensity of the rifle and machine-gun fire.

As soon as the situation was fully grasped reinforcements were hurriedly sent up to all the units which had been successful in reaching their objectives; and while the battle was still raging furiously an attempt was made to consolidate the position won. The 5th Canadian Mounted Rifles made a noteworthy and most daring effort to connect with the 24th Battalion on their right; and, to aid them in this, one company of the 1st Mounted Rifles was placed at their disposal. However, this gallantry counted for nothing; for, scarcely had they begun their forward rush, when they unexpectedly encountered a large German detail advancing to counter-attack, and were driven back step by step, hanging on with grim determination until further efforts were seen to be

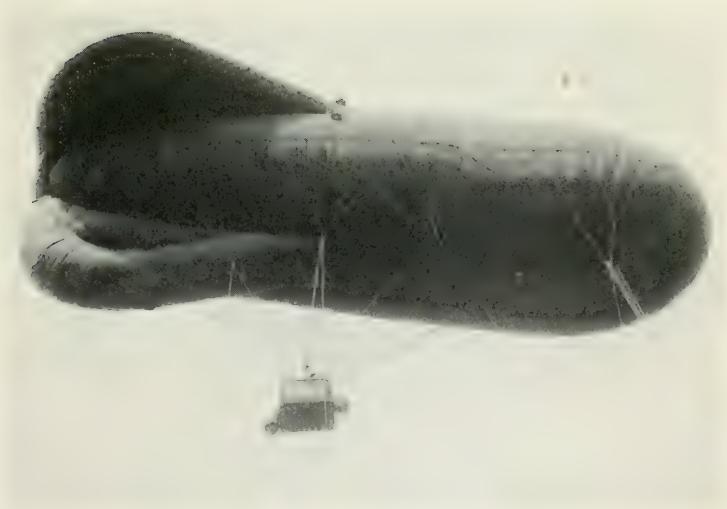
useless. A Canadian counter-attack was immediately organized and was successful in getting into Regina Trench after a severe assault. There the attackers hung on until five o'clock the next morning, when the Germans again came upon them in much stronger force and drove them back to Hessian Trench. Thus the situation remained until the 8th Brigade was relieved by the 7th on the night of October 2nd in the Hessian Trench as originally held.

The day's fighting had not seen the objective reached; but it had resulted in the Canadians establishing a new line from Courcelette Trench across the Pys road, thence running north and north-east of the Practice Trenches and across the Dyke road to a junction with the British on the right. The 6th Brigade was ordered in to relieve the 5th and took over the line as it stood, that is, the captured portion of Kenora Trench, the post in Courcelette Trench, and the new trenches to the west of Kenora Trench. This brigade also took over the 4th Brigade line as far west as the Pys road.

On October 2nd the Royal Flying Corps reported that the enemy was very strong along Regina Trench on the west of East Miraumont road, and a special reconnaissance was ordered of Regina Trench from this road to Le Sars line. The Canadian troops busily engaged themselves in establishing the new line, and Regina Trench was heavily shelled by the artillery. Orders were issued to establish a new line from which to attack Regina Trench between Courcelette Trench and Below Trench. The fighting had been of such a strenuous character that reliefs were needed more often than previously, and in the early morning of the 2nd of October the 6th Brigade went into the line, having the 7th Brigade on its left.

The wire entanglements which had been erected by the Germans had been shown to be much more formidable than had at first been supposed, and in order

S. O. S. BY PIGEONS



KITE BALLOON

From the little basket observations of the utmost military importance are made

Canadian Official Photographs

to give the artillery a free hand to deluge them with shells the advanced post in Kenora Trench, close to Regina Trench, was temporarily abandoned. On October 3rd a night reconnaissance was carried out; and, while it produced little result, it showed that Regina Trench was held by large forces of the enemy. Further operations by the infantry were interrupted by the weather conditions, which were extremely unfavourable, and the Reserve army decided to devote a couple of days to artillery preparations. But in spite of the heavy rains the men were actively engaged in working on the new line in front of Regina Trench. On October 4th hostile artillery heavily shelled the Canadian front areas and Zollern Trench, but for the infantry it was comparatively quiet. The Royal Canadian Regiment occupied Kendall Trench and established posts within a few yards of the enemy. It is interesting to note that the Canadian artillery fire had completely demolished a third of this line of trench. Nothing of great importance occurred during the 5th, 6th, and 7th of October with the exception of a rearrangement of the forces in the line. The 4th Canadian Division, after its experience in the Ypres salient, arrived at the Somme on the 5th, giving promise of a relief for some of the tired fighters who had already gone through such strenuous battles. The following day the 3rd Division sent out patrols along Regina Trench to examine the enemy wire, which the artillery had been engaged in cutting. Reconnaissance was also carried out on the Destremont Farm front, which was assigned to the 1st Division. The enemy artillery, meanwhile, was not idle, and engaged in a heavy bombardment of Courcelette and Maple Leaf road.

On October 7th the 3rd Canadian Divisional Artillery arrived at the Somme and relieved the Lahore Artillery. Its appearance was marked by a bombardment to which the Germans replied vigorously. The

Canadians were making preparations for another attack, running out saps and improving the communication trenches. Although there had been something of a lull in the infantry engagements the men had lost no time in improving conditions for the work that was ahead of them. Despite the artillery's wire-cutting efforts, the Germans had worked persistently, and patrols reported that about the junction of Regina and Kenora Trenches the entanglements were still in fairly good condition and presented a rather formidable barrier.

In all these operations the Motor Machine Gun Brigade rendered invaluable service and continued in action despite heavy artillery fire. The machine-gun detachment of the cavalry acted as a carrying party. The Borden Battery was wonderfully effective, although three guns were destroyed by direct hits and twenty-two casualties resulted. Since the beginning of their offensive the Canadians, fighting nearly every yard of the way, had wrested over three square miles of territory from the Germans. An idea of the desperate character of the fighting may be arrived at from the fact that the casualties of the Canadian Corps from September 27th to noon of October 4th totalled 122 officers and 5,387 other ranks, killed, wounded, and missing.

In one of the actions conspicuous bravery was displayed by a private of the 49th Battalion. He was one of a party engaged in a bombing attack, which was held up when the supply of bombs was exhausted. Although he had been painfully wounded, he jumped out of the trench, ran along the outside, firing at the enemy and killing and wounding many of them. The remainder, sixty-two in number, believing themselves to be surrounded and cut off from escape, surrendered. With two other men this gallant soldier escorted the prisoners across open ground under heavy artillery fire to a support trench, and then returned, reporting

to his company commander before his wound had been dressed. This is but one instance of the outstanding pluck shown by the Canadian troops.

7. The Second Attack on Regina Trench

On October 8th another effort was made to wrest Regina Trench from the possession of the Germans, and once again the Canadians were doomed to disappointment, the story of the day being one of repeated attacks and counter-attacks and of desperate hand-to-hand conflict. Two divisions were engaged, the 1st on the right and the 3rd on the left, and the attack was a general one, the 23rd (Imperial) Division being on the right of the Canadians and the 25th (Imperial) Division on the left. Each of the Canadian Divisions had four battalions engaged, these occupying the line from left to right as follows: the 49th and the Royal Canadian Regiment of the 7th Brigade; the 43rd and 58th of the 9th Brigade; the 13th and 16th of the 3rd Brigade; and the 3rd and 4th of the 1st Brigade. The objective was the German position from the Dyke road around the Quadrilateral (the intersection of Gallwitz Trench and support and Below Trench and support); thence along Regina Trench to the Kenora communication trench between the Grandcourt and Twenty-three roads. The enemy at this point occupied particularly strong entrenchments, some of which were placed upon a reverse slope, so that close direct observation by day was, for the most part, impossible. Heavy wire entanglements were known to exist, and it was afterwards found that, although the Canadian artillery had cut many lanes through the wire, a formidable obstacle to a rapid infantry assault still remained. Despite the preliminary intense bombardment a number of German machine guns still continued in action. As the long rows of the Canadians came up to the attack they

were met by a sweeping machine-gun and rifle fire. Nevertheless, each battalion pressed resolutely forward. The leading men broke through the entanglements and, despite an energetic resistance, including a heavy fire of hand grenades, which continued to the last moment, succeeded in reaching and entering a large part of their objective. However, the Canadians did not meet uniform success along the whole frontage, and during the day varying fortunes attended the successful elements in their efforts to consolidate and maintain the captured positions.

The attack was commenced at 4.50 a.m., on October 8th, the line moving forward as one man at that minute. On the right a task of especial difficulty was assigned to the 3rd and 4th Battalions in the capture of the criss-cross of German trenches of great strength known as the Quadrilateral. The 4th Battalion, on the right, encountered heavy wire in front of the first Below Trench and was compelled to veer to the left. It entered the first Below Trench just south of the Quadrilateral and proceeded to bomb south of Dyke road. With the 3rd Battalion it steadily worked its way eastward until the whole of the first enemy line was in its possession. Between 150 and 200 prisoners, belonging to different German regiments, were captured and sent out. The trenches were found to have suffered severely from the artillery fire, and, as a further consequence of the bombing and bayonet fighting, they were in places literally heaped with German dead. Unfortunately, there was difficulty in securing an adequate supply of bombs, owing to the stubborn resistance which had been met at the start and to the lack of a sufficiently large reserve supply. The battalion borrowed bombs from the 3rd Battalion and from the 23rd Division on the right and, while these lasted, was able to hold its own. However, a fresh supply, notwithstanding desperate efforts to obtain it, was not forthcoming, and this was re-

sponsible finally for the loss of the ground which had been taken.

Not long after the Canadian occupation of the trenches the German artillery began to range upon them with great accuracy, and this bombardment continued for some time with increasing intensity. During the morning two attempts by local enemy forces to recover the lost ground by bombing attacks were broken up, the Canadians stoutly resisting all efforts to dislodge them. The Germans hurriedly brought up reinforcements, however, and, in the early afternoon, after a concentrated bombardment, launched another determined attack against the centre of the Quadrilateral. They came down the first and second Below and the first and second Gallwitz Trenches, and rushed three posts which had been established, even coming over the open ground from the second Below Trench. The 3rd and 4th Battalions, a wedge having thus been driven between them, were gradually compelled to withdraw to the east and west until the whole position was evacuated. Nothing daunted by this reverse they organized three successive bombing counter-attacks, but they were unable to re-establish themselves. The 4th Battalion fought for every inch of the first Below Trench down which it had been driven; but the unequal combat could not be continued indefinitely, and, about six o'clock at night, the survivors were forced into the lines of the 23rd Division.

The 16th Battalion did excellent work in a difficult advance of nearly five hundred yards, and, after an impetuous charge, broke into the greater part of its objective, killing or capturing the entire German garrison and settling down to hold what had been taken. It was able, indeed, to retain its position after the 13th Battalion on its left and the 3rd Battalion on its right had been driven back; but, with both flanks exposed, it was in grave danger of annihilation. How-

ever, it fought on doggedly until nightfall. It was seen that it was useless to attempt to hold this advanced position longer, and the battalion reluctantly withdrew to its original lines. In the midst of this retirement the Germans launched a fresh attack with large numbers of men.

The 13th Battalion was even less fortunate in its attack, although it was pushed with equal gallantry. Heavy wire was encountered and in the obscurity the men were not able easily to find the gaps. They were thus required to move parallel to the enemy's trench, seeking the entrances, and were exposed to a bitter machine-gun fire. None the less, certain elements penetrated the German position and continued to hold it against counter-attack as long as resistance was possible.

On the left half of the Canadian frontage almost the same conditions applied, the uncut wire being responsible for holding up the attack of the 9th Brigade so long that its success would have been problematical even had the resistance offered been less formidable. In addition a heavy rain began just after the zero hour and made the footing insecure and most unfavourable for an advance. The 43rd Battalion, on the left, encountered heavy wire and both it and the 58th faced cruel machine-gun fire. Some of the 58th were able to reach their objective; but both flanks remained without protection, the right because of the withdrawal of the 13th Battalion, and the left because the men on that flank had failed to reach the trenches. The Germans, with their superior numbers, were not slow to take advantage of the situation and after a heavy bombing exchange the remnants of the battalion were driven back.

Of the 43rd Battalion only one company succeeded in reaching the objective. Here and there individuals of that company managed to make their way through the wire, but to no avail. Fighting stubbornly, the

men of this one company strove gallantly to maintain the position; but the enemy counter-attacked, and, of the plucky little band, only ten men reached their own lines in safety.

Next to them the Royal Canadian Regiment was also able to penetrate the German defences. It attacked on a three-company frontage and occupied Regina Trench for a distance of one hundred yards west of the West Miraumont road. There was a gap between it and the 49th Battalion on its left and each battalion was bombing towards the other in the hope of getting in touch. Supports of the Princess Patricia's were brought up, two companies being stationed in the jumping-off trenches and two in Fabeck Graben Trench to be ready to advance in order to push home any advantage. But conditions had changed before orders were given for any further move. An effort was made to reinforce the Royal Canadian Regiment, which was still holding its own, but this was frustrated by the enemy.

The 49th Battalion, on the extreme left, was also having a strenuous time. One company eventually reached Kenora Trench, but two others found themselves blocked by heavy wire, immediately in front of the enemy trench, which had not been touched by the Canadian artillery. From Kenora Trench another valiant effort was made to effect an entrance to Regina Trench by sending up three bombing parties, but none of these were able to pass the concentrated fire of the German troops who were massed at the junction of the two trenches. A still further effort was about to be made when it was found that the Royal Canadian Regiment was no longer able to withstand the assaults of the enemy, and the Canadians were finally forced back into their jumping-off trenches.

The result of the whole attack was disappointing; but, numerous as their own casualties were, the Canadians exacted a heavy toll. Although they were not

able to reach and to hold their objective, the men who returned had no feeling that they had been defeated. On the contrary they were satisfied that they had shown their superiority in battle, the cause of their failure being something beyond their control. The casualties bear witness to the bitterness of the struggle. During the period from noon, October 4th, to noon, October 11th, the Canadians lost 158 officers and 2,527 other ranks killed, wounded, and missing. The battle had vividly revealed the fact that the Germans were determined to maintain this part of their position at all costs, and their losses must have been enormous. The Canadians, who had borne the brunt of this particular part of the fighting, were themselves almost exhausted. The two brigades, the 7th and 9th, were relieved and the 8th Brigade went into the line.

There now followed a period of comparative quiet after the eventful struggle of the 8th, due to a great extent to the weather conditions, which were most unfavourable to the work of the infantry. After much effort junction was made with the Imperial brigade on the right by the construction of a new trench south of the Quadrilateral from Dyke road to Below Trench, and the enemy, probably fearing a repetition of the attacks of the previous day, shelled the entire front with both shrapnel and high explosives, but without doing very much damage. This bombardment was continued on the 10th, being particularly directed against Dyke road and North Practice Trench, but it was not effective enough to discourage the Canadians in their work of constructing and consolidating new lines.

The frontage from Twenty-three road to north of the North Practice Trenches, held by the 8th Brigade, was again heavily shelled on October 11th, this time with more effect, causing a few casualties and doing much damage to the trenches. Following up this

bombardment the Germans essayed an attack from Regina Trench near the East Miraumont road, but were caught, as they were leaving their own parapet, by a barrage laid down by the 2nd Divisional Artillery. And so these artillery exchanges continued day after day, almost unceasingly. On the 12th the enemy shelled the new trench south of the Quadrilateral between Dyke road and Below Trench, and gas and lachrymatory shells were thrown into Pozières and Courcelette. On the 13th the Germans shifted their attention to Martinpuich and the front and support areas, and the Canadian artillery retaliated vigorously. The 4th Divisional sector suffered a bombardment on the 14th, and gas shells were thrown into the 8th Brigade lines. An intense barrage followed during the afternoon of the same day, doing much damage to the trenches and destroying the communications. Meanwhile the Canadians were detailing working parties each day from the battalions not actually in the line, preparing for a meditated attack.

On the 15th the 8th Brigade, on the left of the line, was relieved by the 53rd (Imperial) Brigade. The Canadian artillery was particularly active, and directed its fire upon Regina, Courcelette, Below, and Gallwitz Trenches, causing much destruction in the German defences. Pys also was bombarded and enemy observation posts there were destroyed. Near Achiet Trench a large party of the enemy was observed and dispersed.

It was evidently the intention to make sure that the approaching attack on Regina Trench should not fail by reason of impassable entanglements, and the artillery directed much of its attention to cutting the wire. Despite the enemy's artillery activity, patrols from the 10th and 11th Brigades, which were sent out to reconnoitre the strength of the German position, reported that the wire in front of Regina Trench had

been practically demolished. The artillery again bombarded Regina, Coulée, and Courcelette Trenches, locating and destroying several machine-gun emplacements. Heavy casualties also resulted among a body of German infantry observed north of Irles.

8. Capture of Regina Trench

The ultimate capture of Regina Trench was accomplished by the 4th Division, which had arrived in the Somme area on October 5th, and which first took its place in the line six days later. This division was commanded by Major-General David Watson, C.B., C.M.G., and was composed of the 10th, 11th, and 12th Brigades. The 10th Brigade was from Western Canada, being made up of the 44th (Winnipeg), the 46th (Southern Saskatchewan), the 47th (British Columbia), and the 50th (Calgary), and was commanded, for the first five months of its active service in France, by Brigadier-General W. St. Pierre Hughes. The 11th Brigade consisted of the 54th (Kootenay), the 75th (Toronto), the 87th (Montreal), and the 102nd (Northern British Columbia), and was commanded by Brigadier-General V. W. Odlum, D.S.O. The 12th Brigade was organized with Brigadier-General Lord Brooke in command. It consisted originally of the 51st, 72nd, 73rd, and 87th Battalions. In June, 1916, the 51st lost its identity by reason of the fact that it was required to send heavy reinforcements to France, and its place was taken by the 78th, the 87th Battalion being transferred to the 11th Brigade. The 12th Brigade was finally composed of the 38th (Ottawa), the 72nd (Vancouver), the 73rd (Montreal), and the 78th (Winnipeg). Shortly after its arrival in France the command of this brigade was transferred to Brigadier-General J. H. MacBrien, D.S.O.

On October 11th the 4th Division took over the 3rd

NO MAN'S LAND, COURCELETTE, SEPTEMBER, 1916

75TH BATTALION IN REGINA TRENCH

Canadian Official Photographs

Division lines, the 8th Brigade remaining for a time under its orders. For the first day, outside of the usual shelling there were no noteworthy happenings, but weather conditions were beginning to be so bad that much work was necessary to keep the trenches in shape for habitation. Patrols were sent out occasionally to determine the condition of the enemy wire, and, this being reported in a satisfactory state for penetration, preparations were made for another attack.

On October 17th, the 10th Brigade occupied the lines which had been held by the 2nd Brigade of the 1st Division, and the 4th Division came under the command of the Second Corps, receiving its instructions for the preliminary operations. The intention was to have the corps attack between Courcelette Trench and the river Ancre, the objective being Petit Miraumont, Grandcourt, and St. Pierre Divion, and, after the Ancre had been crossed, to push north. In this movement the 4th Division was to advance, with the 18th Division of the Second Corps on its left, and was also to protect the flank of the Third Corps, on its right. Before this was to be undertaken, however, the Second Corps was to capture the Regina-Stuff line of trenches, in which operation the Canadians were to co-operate by capturing and consolidating Regina Trench from Courcelette Trench to a point just before the junction with the Pys road, thence easterly to the sap-heads built by the 10th Brigade. The actual objective was a small one, but the Canadians were obliged not only to secure the proper objective, but also to connect the right of the captured position so as to make a defensive flank to the east. All arrangements were practically completed by the following day.

The 11th Brigade moved up to its advanced Headquarters in the North Practice Trenches and encountered a great deal of trouble in establishing

satisfactory communications. The artillery was not very busy, although the Canadian guns kept the enemy from repairing his damaged defences. On October 19th the rain came down in torrents, making any move over the heavy ground almost impossible. However, saps were being driven towards Regina Trench and jumping-off positions established by both the 10th and the 11th Brigades. The progress of this work was observed by the Germans, who bombarded the 11th Brigade frontage furiously; to this bombardment the Canadian artillery replied most effectively. Another day passed and nothing could be done because of the weather. The time was taken advantage of by the artillery in completing the demolition of the enemy wire. Conditions at this time were most trying on the men; for the trenches were half filled with water, and for this there was not the slightest remedy.

During the night of October 20th the assaulting troops took up their position, the capture of the objective being undertaken by the 11th Brigade under Brigadier-General V. W. Odlum, D.S.O. The 87th and 102nd Battalions were placed in the line, the former on the right; and the 75th provided two companies for the support of each of these battalions. Shortly before noon on the 21st the enemy, no doubt suspecting the imminence of an attack, began a heavy artillery fire upon the front lines. About noon the Canadian guns opened with the full fury of their massed batteries. The concentration was intense, and the hail of heavy shells and shrapnel descended with deadly force and accuracy. Then the infantry advance began. The men clambered out of their trenches, and in long lines dashed forward close under the barrage, advancing as rapidly as the state of the ground would permit. In ten minutes the five hundred yards of open ground had been covered and part of Regina Trench had been taken. Early in the afternoon contact was effected

with the successful 53rd Brigade of the 18th (Imperial) Division on the left.[1]

An official report tells of a tragic incident which for the moment threatened the success of the assault. Lieutenant Scott was advancing at the head of his men, and was directing their progress in accordance with the artillery barrage. As the men got down to await the momentary lift of the guns, the lieutenant was shot and killed. His death was not at first remarked, and his men still waited the signal to advance. Not until the barrage had passed beyond the German trench did they realize the situation. Then, with an impetuous rush which nothing could arrest, they dashed for the trench, eager to avenge the death of their gallant young officer. In the meantime, however, the enemy had been able to man his parapet and the Canadians suffered some casualties; but they succeeded in their attack.

On this same day, October 21st, the enemy was seen to be massing troops near the Coulée Trench and was dispersed by the Canadian artillery fire. Further information was received that the Germans were concentrating near the chalk pits east of the Quadrilateral. The artillery and machine-gun fire was redoubled and a counter-attack was prevented. No attempt was made by the enemy to counter-attack during the night beyond a few bombing raids, which were easily repulsed. The state of the front lines and the captured ones, which were heavily shelled on the 22nd, was very bad, and the men were required to hold their ground under the most trying conditions.

By the 23rd preparations for another advance were in process of completion. The 10th Brigade was detailed to carry out the capture of Regina Trench, and was instructed to extend its right to the chalk pit

[1] From October 21st the Canadians were represented in the Somme area only by the 4th Division, the 2nd Division having left on October 10th, the 3rd on October 20th, and the 1st on October 21st, for a brief rest before proceeding to the Lens-Arras front.

south of Warlencourt, the preliminary attack being arranged for the 24th. The 11th Brigade was to co-operate by pushing up a block in Regina Trench eastward. On the 24th it was reported that the 44th Battalion, which had been chosen to undertake the attack, was very much exhausted as a result of the severe conditions, and the minor operation was postponed for twenty-four hours. In the meantime the 11th Brigade patrols pushed the block in Regina Trench another 120 yards eastward.

At seven in the morning of the 25th the 44th Battalion, supported by the 46th, went over the top, and for a time it appeared as if it would be successful in reaching its objective,—between the Quadrilateral and the 11th Brigade block, east of the Pys road,—but, meeting with very heavy enfilading machine-gun fire from the Quadrilateral, the men were utterly unable to advance farther. The 11th Brigade had bombed eastward from their block, but, as the 44th did not arrive, the Germans were able to concentrate a strong bombing counter-attack and to drive them back to their original post. The corps thereupon decided to make this portion of Regina Trench part of the objective for a later operation.

For the week following the weather was so bad that it was impossible to carry out any advance on a large scale, the utmost difficulty being experienced in bringing up ammunition for the guns or even supplies for the men. On the 26th the 12th Brigade relieved the 10th and 11th in the line, and hostile artillery was active south of the Albert-Bapaume road. German troops were observed in large numbers in the Grandcourt Trench, and the heavy guns concentrated on this point. They also endeavoured to complete defensive works between Regina and Grandcourt Trenches, but made little headway. There were no active infantry operations, although large patrols at night, particularly from the 38th and 78th, recon-

noitred the enemy positions and located new lines. The artillery, despite the weather, maintained a steady bombardment of the enemy trenches. Many of these were now subject to close direct observation, and any movement or activity on the part of the Germans immediately drew a concentrated fire. A heavy and monotonous task devolved upon the men in the work of improving and consolidating the lines. They laboured under the worst possible climatic conditions; the weather through the day being continually cold and rainy, although at night the sky usually cleared and gave a deceptive promise of improvement. The enemy meanwhile made no further attempts to retake the trenches recently captured.

By the end of the month the weather improved a little and the artillery fire became general. Probably as a reminder that they were still able to destroy cities the Germans threw a dozen or more shells into the unfortunate town of Albert, or what was left of it, on the last day of October. They followed this up with some attention to the Canadian support lines and communication trenches. Meanwhile Canadian patrols were busy, and as a result of their observation it became known that the wire in front of Coulée and Below Trenches was in a satisfactory state.

On November 3rd the 12th Brigade was relieved in the front line by the 10th and 11th. On the 4th the weather cleared and the aircraft and artillery were correspondingly busy on both sides. Movement of troops and transport was observed in the German lines along the Irles-Miraumont road. The enemy was on the alert, apparently, for it was reported that he was throwing up fresh obstructions in front of Gallwitz Trench, this being observed by patrols which had worked up the East Miraumont road. On the 5th the Imperials and Australians attacked the Butte de Warlencourt on the Canadian right, and the enemy placed a barrage on the 10th Brigade lines. Patrols

reported that the Germans had thrown out fresh wire in front of their new trench, north of the Quadrilateral, running east from Below Trench, but there appeared to be no obstacles to an advance on a line from Practice road to a point two hundred yards east of Farmer road. On November 6th the 10th Brigade established two posts close to Regina Trench in the vicinity of the Pys and Miraumont roads; and a scouting party, working down Farmer road to Dyke road, patrolled as far as Aqueduct road, locating some machine-gun emplacements. The following day there was a heavy bombardment of the Canadian line west of Dyke road, while the Canadian artillery retaliated on Coulée and Below Trenches. The enemy was now busy building new machine-gun emplacements in Grundy road and placing new wire in front of his trenches.

Courcelette was shelled heavily during the afternoon of November 8th. Patrols reported a new trench connecting Desire Trench with the East Miraumont road. Arrangements were now made for an attack by the 10th and 11th Brigades as soon as the weather permitted two days' preliminary bombardment, it being proposed to capture and consolidate Regina Trench from the 11th Brigade block, east of the Pys road, to Farmer road, and to establish strong blocks at the intersections and beyond, north of Regina Trench. On the 9th and 10th the weather remained fine, and heavy artillery bombardment of Regina Trench was carried out, everything being now ready for the attack.

Three battalions were engaged in the thrust, the 46th and 47th of the 10th Brigade, and the 102nd of the 11th Brigade. The attack was preceded by a bombardment almost as fierce, although on a comparatively narrow front, as any that had yet been seen on the Somme. It was most effective, trenches and positions being swept out of existence, and the place

being littered with German dead. The ground was very heavy for an attack, but, behind the barrage, the Canadians got over with comparatively few casualties. East of Regina Trench there had been a nest of enemy positions along an old farm track, known as Farmer's road, and a large sunken road which ran from Courcelette to Warlencourt. A local rise or swelling in the ground, together with a number of treacherous ditches, made the position difficult; while the fact that the ground did swell there made it desirable that the Canadians should hold it. However, the attack was completely successful. Soon after the first wave went over the parapet at midnight, the barrage lifted, and the Canadians won into the trench with bomb and bayonet.

Within half an hour of the time of starting the whole position was gained. The line which they attacked was held partly by troops of the Prussian Guard and partly by Saxons; and the prisoners who were captured were from both in nearly equal numbers. Farmer's road had been an unpleasant interruption in the advance, but all opposition from that quarter had now been removed. Under cover of advanced bombing posts the new line was consolidated, and a block established about eighty-five yards in advance of Regina Trench by the 102nd Battalion. The enemy counter-attacked heavily from time to time throughout the night, but was unable to remove the Canadians' hold upon the position. The 46th and 47th Battalions overran their objective some one hundred yards, and, because of their own artillery fire, had to abandon this line. Early in the morning, however, all the positions had been consolidated and a new trench was being constructed connecting Regina and Kling Trenches. The achievement of the 4th Division had been a most satisfactory one, and all concerned in the operation were congratulated by the Higher Command. The casualties in the 10th Brigade were

3 officers killed and 4 wounded, 41 other ranks killed, 156 wounded, and 26 missing, mainly from the 47th Battalion, which had run into machine-gun fire. The 102nd Battalion lost 4 officers wounded, 10 other ranks killed, 34 wounded, and 8 missing.

The 12th Brigade relieved the 10th and 11th in the new line and on November 12th pushed out advanced trenches so as to gain observation over the Coulée and Below Trenches. Desire Support Trenches were bombarded without a great deal of retaliation. A portion of the trenches on the extreme right was taken over by the 48th (Imperial) Division. On the 13th the Imperials attacked on the left of the Canadians, and the enemy placed a barrage on the Canadian right flank. Both on this day and on the following the German artillery was very active, throwing a number of gas shells into the Canadian lines; and enemy aircraft raided the camps and bases behind the Canadian line during the night. Below Trench and hostile communication lines were shelled in retaliation.

9. The Capture of Desire Trench

Preparations were now complete for the attack on Desire Trench, but the climatic conditions could scarcely have been more deplorable. Regina Trench and other trenches and communication lines in the possession of the Canadians were a sea of mud, the men having to continue with their work under frightful disadvantages. The risk from enemy fire which they had to undergo was, in fact, one of the least of their troubles. The men forgot the danger, — they had become accustomed to facing that, — but the physical discomforts were enough to dampen the ardour of even the most stout-hearted. The trenches were literally ditches and the footing abominable. Winter was setting in and it was apparent that there could be little more effective fighting unless there was

a cessation of the rain. France had not had such a prolonged rainy season in many years.

Notwithstanding all these disadvantages the Canadians stuck to their task with grim determination, and this meant that the Germans had to work almost equally as hard. The Germans, however, had their dug-outs, where they could obtain shelter; but there were none of these luxuries for the Canadian fighters. The infantry could do nothing but prepare for an attack, making the path a little more easy; but the artillery kept at it unrelentingly.

On November 16th instructions were given for the attack, the 11th Brigade taking over the line held by the 54th Brigade, 18th (Imperial) Division; and the next day was devoted to a preparatory bombardment, the artillery shelling the German line, the southern portion of Below Trench and Coulée Trench; in addition to which there was some successful wire-cutting. On the night of November 17th the Germans shelled the left of the 11th Brigade front, where the 38th Battalion was situated, causing some casualties.

The objective in the attack on Desire Trench, so far as the Canadians were concerned, was from a point near Farmer's road, on the right, to some six hundred yards west of the West Miraumont road, on the left. Here the Canadians connected up with the 18th (Imperial) Division. The 10th Brigade was to attack from the apex of Regina Trench, on the right, to the intersection of the German new trench and Desire Support. The 11th Brigade was to advance its line to the line of Desire Support Trench as far west as a point in the Ravine, one hundred yards east of where the Ravine turned north. The 11th Brigade, on the left of the attack, had attached to it for the occasion the 38th and 78th Battalions of the 12th Brigade. The frontage of the 10th Brigade was a limited one of about six hundred yards; but it was one of many difficulties. The attacking party here con-

sisted of two companies of the 50th Battalion (Calgary, Lieut.-Colonel E. G. Mason) and one company and one platoon of the 46th (Southern Saskatchewan, Lieut.-Colonel H. J. Dawson) in the assaulting waves, with one company of the 44th (Winnipeg, Lieut.-Colonel E. K. Wayland) in support.

Brigadier-General Odlum, in command of the 11th Brigade, made his attack with four battalions (the assaulting waves of each consisting of two companies), and one battalion behind his centre, in support. The battalions were, from right to left: the 75th (Mississaugas, Toronto, Lieut.-Colonel S. G. Beckett), 54th (Kootenay, Lieut.-Colonel A. G. H. Kimball), 87th (Canadian Grenadier Guards, Montreal, Lieut.-Colonel R. W. Frost), and 38th (Ottawa, Lieut.-Colonel C. M. Edwards), of the 12th Brigade, while the battalion supporting was the 78th (Manitoba, Lieut.-Colonel J. Kirkcaldie), also of the 12th Brigade.

The artillery supporting was the 1st, 2nd, and 3rd Canadian Divisional Artillery (commanded respectively by Brigadier-General H. G. Thacker, C.M.G., Brigadier-General E. W. B. Morrison, and Lieut.-Colonel J. H. Mitchell), the Yukon Motor and Machine Gun Battery (Captain H. F. Murling), and also the 11th (Imperial) Divisional Artillery and the Second Corps Heavy Artillery. The 3rd Divisional Artillery, which had now been for some time actively engaged in the operations on the Somme, consisted of the 8th Brigade (Lieut.-Colonel D. I. V. Eaton), the 9th Brigade (Lieut.-Colonel H. G. Carscallen), the 10th Brigade (Lieut.-Colonel G. H. Ralston), and the 11th Brigade (Lieut.-Colonel A. G. MacNaughton). The 8th Brigade was composed of the 30th, 31st, 40th, and 35th Batteries; the 9th Brigade of the 32nd, 33rd, 45th, and 36th Batteries; the 10th Brigade of the 37th, 38th, 39th, and 43rd Batteries; and the 11th Brigade of the 29th, 41st, 44th, and 46th Batteries. Of these the 29th, 35th, 36th, and 43rd were howitzer

batteries, which had originally formed the 11th Brigade, but which had been distributed with a view to increasing the general effectiveness.

Shortly after six o'clock on the morning of November 18th the Canadian artillery opened a heavy barrage on the enemy lines two hundred yards in front of the British trenches and the troops went over the parapet. Snow was falling and the visibility was poor. Nothing could have excelled that barrage either in accuracy or in effectiveness. The German guns promptly put up a counter-barrage, but the attacking forces went through it with fewer casualties than were to have been expected. The barrage crept forward methodically and the men of the 11th Brigade followed closely. The Germans suffered severely in this storm of iron, and on the extreme left many of them left their trench, and, throwing down their arms, gladly surrendered. On the right of the objective of the 38th Battalion a strongly held machine-gun post offered an obstruction, but this opposition was soon swept aside by effective bombing, although not without many casualties. A number of prisoners were taken, many of them having to be bombed out of their dug-outs. The 75th, 54th, and 87th Battalions also reached their objectives.

On the right of the attack the progress of the 10th Brigade was not so favourable. On its frontage the line for several hundred yards passed over a knoll, exposed to a destructive fire from the enemy's batteries. The knoll itself proved to be a nest of machine guns. The 50th Battalion, on the brigade left, gained its objective, but after doing so lost direction, and, swerving to the right, lost touch with the battalion on its left. Taking advantage of this unprotected frontage the German guns opened up from Lupart Wood. The battalion was swept with machine-gun fire from both sides, occasioning a loss of two hundred men, and was forced back.

The 46th Battalion, on the right, when about seventy yards from the enemy's trench ran into a withering rifle and machine-gun fire and the wave was broken. The German trench was held in great strength and was left to be dealt with later. As a matter of fact, as soon as the situation was understood the enemy position was isolated by the Canadian artillery fire, being captured subsequently without any serious opposition.

From Coulée Trench the Germans launched a counter-attack on the frontage held by the 54th Battalion, and preparations were made to give them a warm reception. They evidently did not like the prospect; for after advancing some distance, apparently determined to recover the lost ground, they threw down their rifles and bombs and surrendered.

Not satisfied with reaching their objetive the 11th Brigade pushed on 150 yards past Desire Trench and dug themselves in there; but no counter-attack developing, as was expected, two battalions, the 38th, on the extreme left, and the 87th, on their immediate right flank, continued their advance. These two battalions swept on to Grandcourt Trench, a portion of which they successfully occupied and in which they established themselves. This had been accomplished by nine o'clock in the morning. The 18th (Imperial) Division, on their left, had, however, met stubborn resistance from the direction of Grandcourt and was unable to advance farther than Desire Trench. It was considered that the 38th and 87th Battalions were, therefore, in too dangerous a salient, and later in the day they were ordered to withdraw to the original first objective and consolidate there. This was successfully done. As a factor in the whole advance the Canadians did exceedingly well. At places along the whole line of advance hand-to-hand fighting had gone on, down in the slits of trenches, with shells above them making chaos of the positions.

The result of the struggle was that the Germans

AN OBSERVATION POST ONLY THIRTY YARDS FROM THE GERMAN LINES

ON SENTRY DUTY IN THE FRONT-LINE TRENCH

Canadian Official Photographs

lost the whole south side of the Ancre river up to the very edge of Grandcourt, in the outlying ruins of which the fighting continued. The casualties of the division in this action amounted to 75 officers and 1,276 other ranks; and the prisoners taken numbered 625, of whom 17 were officers. The work of the division did not pass unnoticed and its dogged determination and heroic self-sacrifice were strongly commended by both the commander of the corps and of the army.

The capture of Desire Trench was the last important action in which the Canadians engaged on the Somme. There was no sign of hostile retaliation or counter-attack during the 19th. The heavy artillery arranged a bombardment to start at the junction of New Trench and Below Trench westward to Practice road to the intersection of New Trench and Desire Trench—to clear out the Germans who had held up the right of the attack on the 18th. In the meantime Coulée Trench was bombarded with excellent results. The 12th Brigade was in the line, to the left, from the Ravine to the block in Desire Trench, about 250 yards west of the Pys road; and the 11th Brigade, from the block along the curve south by south-east to Regina Trench and to the entrance on the right of the division position. This proposed artillery action was postponed because of the misty weather on November 19th, and again on the 21st, owing to the relief arranged for the Canadian guns. The enemy bombarded the Regina Trench road junction, causing some damage to our lines, and captured several of a working party east of the Pys road. The hostile bombardment of the front line was continued on November 22nd; and our artillery responded by shelling a trench running from Desire to Below Support Trench. The 184th (Imperial) Brigade took over the line from the Ravine to the West Miraumont road, held by the 12th Brigade on this day, and on November 24th the 10th Brigade relieved the 11th.

Preparations for the relief of the division were completed on the 26th, and the three brigades of Canadian artillery withdrew from the line, being replaced by British artillery. The 10th and 11th Brigades left the area on November 26th and the 12th Brigade followed on the 28th, to join the Canadian Corps with the First Army on the Arras-Lens front.

A word must be said of the Pioneers and their splendid work throughout all these operations. Their main task consisted in constructing and consolidating trenches after they had been captured. The men, in spite of the fact that they carried out all their operations under fire and had no chance of replying, were magnificent. Their only complaint was that they did not get a chance of hitting back. Theirs was not a spectacular part; it was only very arduous and very dangerous. So, as it was explained by one of their officers, while it called forth all the pluck and the endurance men possessed, it had not the éclat of a daring push by infantry, and honours did not often come their way.

CHAPTER III

THE CANADIANS AT VIMY RIDGE

1. The Vimy Front

By the end of November, 1916, the last units of the Canadian Corps had been removed from the Somme front, British and Australian units relieving them. It was a welcome change. The utter desolation, the mud and misery, coupled with the never-ending roar of the guns and the consequent rushing and crunching of shells, made the Somme fighting during the rainy season, especially for the infantry, unspeakably trying. The 3rd and 4th Divisions, the last to leave the Somme, marched from the vicinity of Albert to the region north of Arras in cold, rainy weather. Men and horses were so caked with the chalky Somme mud that they resembled animated plaster casts. The transport wagons and equipment were clogged with mud and dirt, giving some slight conception of the conditions under which they had been used. But the feeling of relief as the roar of the guns and the flashes on the night horizon grew steadily fainter, served to cheer the spirits of the men and to help them forget the rain and the cold, as they trudged to the north and west to the zone between Arras and Bully Grenay.

The new position was intended to give the Canadians a rest. It was, in fact, a vivid contrast to the Somme at that time. With the exception of the futile effort made by a regiment of Lancashire Fusiliers the previous May, no action of any importance had occurred on the front since the dauntless but unsuccess-

ful attempts of the French, under General Petain, in May and again in September, 1915. Although the French had not driven the Germans over Vimy Ridge in these sanguinary battles, they had made important gains to the south of Souchez along the Lorette defences and in the famous Labyrinth near Neuville-St. Vaast. Some of their troops actually gained the crest of the ridge, but not receiving adequate support were forced to fall back. The cost had been heavy, and precluded any further attempts by the French to take the ridge by a frontal attack. Both sides evidently decided to use the Vimy front as a resting place for worn-out troops. Artillery firing had been light and even trench raids were all but unknown. The chief activities had been in the way of trench-mortar battery work and tunnelling and mining by both sides. Numerous mine craters indicated the scene of many of these local encounters, for the explosion of mines usually resulted in sharp fights for the possession of the craters. Some of these British tunnelling operations were destined to be of considerable importance in the storming of the ridge.

Vimy Ridge constituted a military front of defence of great importance. On its northern flank it dominated the Loos salient; to the south it commanded the even larger Arras salient and the Arras-Cambrai road. Viewed from a distance back of the Canadian lines of 1916, the crest appeared as a long, rather low, ashen-grey ridge. As one approached it, the more formidable nature of the position became apparent, especially towards its northern end. There the ground was broken by the deep valley through which the Souchez stream flowed, bordered on the left bank by Lorette Ridge. The slopes of this latter ridge were criss-crossed by the abandoned chalky white trenches from which the French forced the Germans in the epic struggles of May and September, 1915. The western slope is very gradual, but the eastern drops off sud-

denly to the Douai plain, which is about four hundred feet below the crest. This peculiar geological formation is characteristic of other ridges in north-eastern France. In a journey north-eastward from Paris the traveller moves over a series of gently rising plains that end abruptly in escarpments facing eastward.[1] The physical structure of the position was, therefore, of tremendous advantage to the Germans. From its crest they could observe the actions and movements of the Allied troops for several miles to the west. At the same time they were able to place their batteries and supplies near the bottom of the scarp, well up to their trench systems and quite out of observation of the Allies, except from aeroplanes. In order to increase this advantage, underground communication trenches were dug through from the eastern face of the ridge to the German front line. Great stretches of cross tunnels and underground galleries enabled the enemy troops to assemble in considerable numbers unobserved and in comparative security. Scarcely a sign of life, therefore, could be observed on the western slope. It appeared to be a strip of grey desolation pitchforked into the midst of one of the most fertile regions in Europe. Even the trees were blasted and torn and lifeless until they were little more than shattered splinters.

Back of the trench systems occupied by the Canadians the countryside was a scene of utter desolation. Quiet little country villages such as Neuville-St. Vaast, La Targette, Ablaine-St. Nazaire, Souchez, and Carency were wrecked beyond repair. In the two first-mentioned villages the ruin was most complete, only fragments of walls, piles of stone and rubble, splintered trees, and timbers from buildings being left, and even these sad remnants were churned up at intervals by high-explosive shells. To the south of these villages was the famous Labyrinth which had been the vortex of

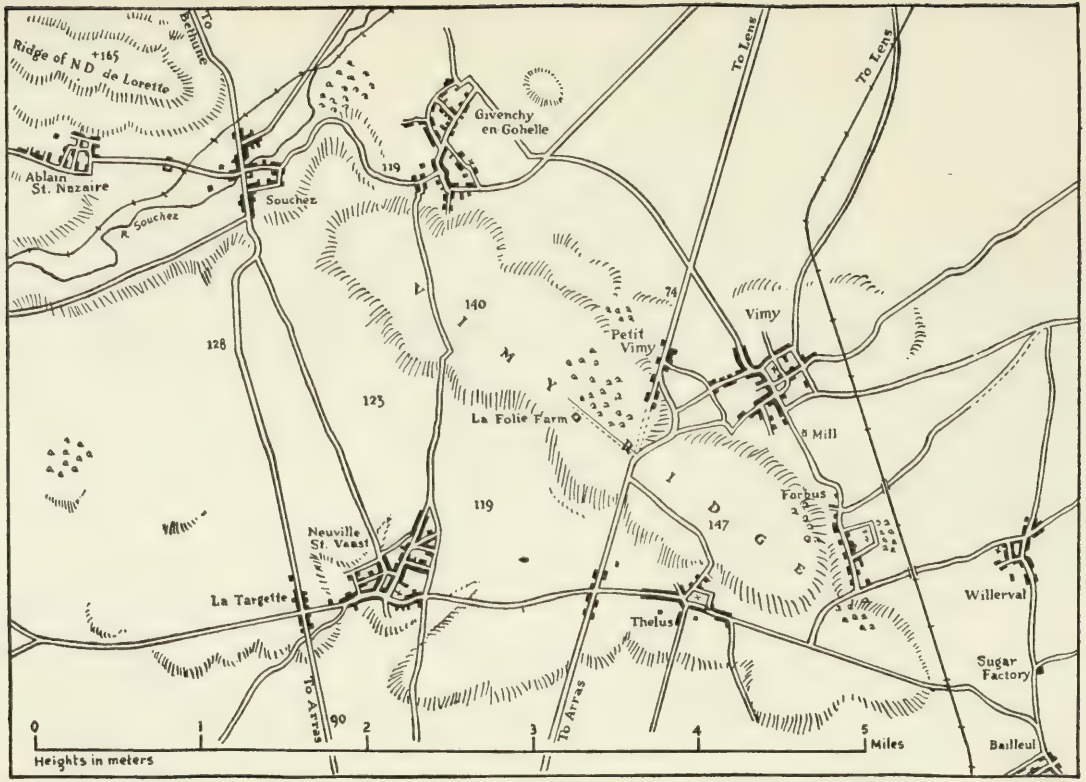
[1] *The International Geography.* H. R. Mill, Editor.

one of the struggles of more than a year before when the French had, with desperate courage, forced the Germans back to a new position near the crest of the ridge. The little village cemetery formed one corner of the Labyrinth. The simple headstones that had marked the graves of peaceful peasants had been smashed to fragments by shell-fire and lay about in hopeless confusion.

The long, rambling village of Ablaine-St. Nazaire almost hidden in the valley of the Souchez stream was largely a mass of ruins. It, too, had seen much desperate conflict, the French forcing the Germans back yard by yard in close street fighting. It was evident that the inhabitants had but little time to evacuate the town on the approach of the Germans early in the war. Remnants of household treasures were still to be found lying about, and in an old stable the skeleton of an ox was still chained to the manger. The springing into life of the perennial flowers that some home-loving villagers had planted in their little gardens seemed to make the tragedy even more vivid. Fragments of the walls and of the tower of the beautiful sixteenth-century church built by the princes of Artois were still standing, the dazzling white chalk mural finishings being scored and broken by shell fragments.

Souchez had passed through bitter days too. Many civilians, with true peasant tenacity, remained in their homes even after the conflict had settled down to a trench warfare almost at their doors. They were wiped out by poison gas.

One outstanding vantage point behind the Canadian lines was the village of Mont St. Eloi, situated on the side of a high hill about four miles from the crest of Vimy Ridge. This quaint, old-world village received a good deal of attention from the German heavy artillery. The lofty ruined towers of the tenth-century church, visible for many miles in any direction, no doubt



The Vimy Ridge.

seemed to the German Command to offer opportunities for observation which the Allied troops were not likely to miss. Occasional high-explosive shells were dropped in the ruins, and it was a tribute to the workmen of nearly ten centuries ago that their handiwork did not suffer much greater damage. Even the farmsteads had not escaped. They had been transformed into burned ruins, or swept with hurricanes of shrapnel until completely wrecked. Here and there over the deserted fields binders and other agricultural implements had been abandoned, some of them in evident haste. Apparently the invading German armies had surprised the peasants while they were working at their harvests in 1914, some of the implements having been riddled by shrapnel. From the start the Germans took seriously the hellish command of their Kaiser: "It is my will that, in fifty years, your passing through may be remembered with terror."[1]

In addition to these symbols of death that littered the "dead country," there were others that bespoke with tragic eloquence the price that had already been paid in attempts to drive the invaders back. The road between Arras and Bethune passed near many resting places of the men who had fallen before the Canadians appeared on the Vimy front. Scores of thousands of French and British troops gave their lives along that historic ridge. They sleep near where they fell, and the little groups of crosses, symbols of sacrifice, which mark their tombs may fittingly become one of the shrines where future generations of pilgrims will foregather to present their tributes of respect and gratitude.

2. Winter Warfare

The third winter of the war was an unusually severe one. Rains fell mercilessly with scarcely a day's grace

[1] Pierre Loti: *The Trail of the Barbarians.*

CHÂTEAU DE RAUCHICOURT
Canadian Corps Headquarters during the winter of 1916-17

from the latter part of October until after the New Year. Even the hard roads in the rear of the Vimy front carried a slimy mud from an inch to six inches deep. Portions of the old trench walls caved in and low places in the trenches became almost impassable. In some cases the mud was so deep and so clinging that men were occasionally mud-bound and it was necessary to call in the aid of a shovel or two to release them. Considerable repairs were thus necessary.

Parapets had to be rebuilt at many points and the "duck-walks" and entrances to the dug-outs raised and improved. Light frosts at intervals during the late fall helped, in some places, to make the ground more passable, but they seemed to intensify the misery and wretchedness of trench conditions. Major operations were as effectively checked as if a palsy had swept over the opposing armies. Early in January, 1917, the weather grew perceptibly colder, the temperature remaining below freezing for some weeks. A few inches of snow fell, covering the mud and desolation and enabling men to move over the back areas with some degree of comfort. Scouts, patrols, and raiders operating in No Man's Land wore white overclothes for a protective covering, instead of daubing their faces and hands with mud, as had been necessary during the rainy season. The frost seemed to give a new quality to the atmosphere, especially at night. The tense stillness of a quiet, frosty night made the occasional sharp crack of a sniper's rifle and the sinister, whistling hiss of his bullet, or the staccato rattle of a machine gun, sound preternaturally loud. The air seemed pregnant with a deeper sense of the mystery and desolation and death that enshrouded the whole country. Then the rush and splutter of trench flares, followed by the sickly, white phosphorescent light which cast long, vague shadows over No Man's Land, made the surroundings even more eerie and ghostly. Trench working parties took extra precautions to

muffle the sounds of their operations, particularly those who were working on saps or tunnels. Reliefs stole into the trenches and "took over" from the men on duty, making scarcely a sound that could be heard a half dozen feet distant.

If a trench raid was planned, or if one was expected, a pass-word was given to every one who was on duty in the trenches. Sentries posted at every traverse challenged, in a loud whisper, any men who had to move along the trench. It was sometimes literally a fatal mistake to "forget the pass-word."

During the day the nervous tension was generally much less acute. About daybreak the night-working parties gathered at the major's dug-out to receive their "shots of rum"; then they went to the cook's dug-out for their breakfast. In the trenches, that meal usually consisted of a couple of rashers of bacon, or, in lieu of that, a portion of a can of pork and beans, a slice of bread, and a dixie of tea. Sometimes, if his majesty the cook was in good humour, a few of the boys were admitted to his holy of holies and allowed to fry their bread in the bacon grease that still simmered in the pans over the charcoal fires. But the men who were granted this privilege always had to be circumspect in their relations with the cook. Trench kitchen etiquette was perhaps rude, and it was certainly unbending. "Shin toasters" were not wanted. They "cluttered up the kitchen" as well as hindered the cooks with their work and were invited in direct, perhaps even in picturesque language, to move out after they had finished frying their bread. So the night workers soon found their way to their own quarters, where they ate their breakfast, and then, if there was room, they stretched out for a few hours' sleep. They were left undisturbed until noon, unless an alarm from the sentries caused the order to "stand to" to be passed along the line. During the winter these orders were not often necessary, and usually when they were the "stand down"

came within a comparatively short time. Such incidents, or an occasional rifle grenade or "flying pig" bombardment, or a chance aerial combat provided the chief excitement and danger of the ordinary day in the trenches. A quiet day was likely to be uninteresting. Shut out from the surrounding country, there was nothing to be seen except the fifty or one hundred feet of trench, stretching from traverse to traverse. Sentries stood on the firing steps, making frequent surveys of No Man's Land through their periscopes. Snipers held their posts hour after hour with amazing pertinacity and patience. At long intervals one of them would stealthily raise his rifle, take careful, deliberate aim, and fire. Generally his mate would utter a laconic "Got him," for snipers seldom missed their targets. The fatigue men occupied themselves at a variety of duties, assisting the cook, distributing ammunition, repairing broken trench revetments or "duck-walks," or improving the support defence system. The noon and evening meals in the trenches demonstrated beyond peradventure that it was a tin-can age. McConachie, "the canny Scot," was known to millions of British troops, extolled by some, endured by all. Even Tickler, the great jam maker, whose jam tins were converted into bombs early in the war, was not better known, although "Tickler's artillery" won immortality.

To satisfy the essentially human craving for news of events in other parts of the line, short bulletins from Headquarters were posted with the orders of the day. But these necessarily brief records were quite insufficient. Trench rumours travelled up and down the front line with surprising speed, gathering a variety of melodramatic adhesions as they went. Rumour-mongers were to be found in every unit, and when news was scarce they contrived to start a nice new story on its way along the trenches. The arrival of the mail sometimes brought these stories to inglorious ends, but it was often remarkable how the authentic news

verified in a measure the tales of the trenches. The great German retreat on the Somme in the winter of 1917 furnished ample material for wild rumours, yet the tales that reached the Canadian lines were not greatly exaggerated.

By the end of the year 1916, the troops had been engaged in trench warfare so long that they could almost view it as their regular vocation. Fate had overruled their wishes. They were placed in an environment that normal human beings would view with feelings varying from mere discomfort to intense loathing. But in large measure they had become adjusted. Many of them were admittedly fatalists, in so far as the war was concerned. Others, a little more pedantic, claimed to be "predestiners." They cursed war and its attendant evils with a volubility and thoroughness that should have made the proverbial fish-wife green with envy. But in spite of such outward signs of dissatisfaction, the attitude of the men was generally more cheerful than might have been expected. It was a great game played for a great cause and there was always a real satisfaction in pounding "the dirty Boche."

Following out the practice of the previous winter, corps schools were maintained at points well behind the lines. In these schools some hundreds of men, picked from each of the units, were given a month, or more, of intensive training in the special work for which they had been detailed. These men were then returned to their units and others sent to attend the classes throughout the winter. This form of training was exceedingly valuable. It provided a welcome diversion from life in the trenches and enabled several thousand men to develop and improve as specialists capable of instructing the other members of their several units and able to assume control of an operation should the officers become casualties.

Important changes in organization were also carried

out during the winter of 1917. The wonderful defence made by the French at Verdun the previous winter had led the British army authorities to appreciate the great mobility and flexibility of the French infantry units. Prior to that time the basis of the British infantry organization had been the battalion, which was composed of companies of bombers, machine gunners, scouts, and riflemen. It was realized that such a combination might prove much too clumsy in sustained hand-to-hand fighting; consequently it was decided to make each platoon of fifty men practically self-sufficing. That is, instead of having separate companies of two hundred machine gunners, or bombers, or riflemen, respectively, stated numbers of each of these specially trained men should be included in the personnel of every platoon. These numbers varied somewhat in different battalions, as it was deemed best to make the system as elastic as possible, so as to accord with the judgment of individual battalion commanders. An illustration may be given to indicate concretely this revised platoon organization. Thus the platoons of certain battalions comprised, in addition to an officer and three sergeants, fifteen riflemen, eleven bombers, eleven grenadiers, six Lewis machine gunners, two scouts, and one stretcher-bearer. The new system evoked endless discussion throughout the rank and file of the corps. It implied a rearrangement of fatigue duties and parades that was rather disconcerting to the comparatively aristocratic machine gunners and riflemen. Not possessing the sheep-like German attitude towards military discipline, the men indulged in various degrees of "grousing," depending in large measure on how hard the new system affected the individual, so that it is doubtful if the plan received a fair trial during the Vimy period.

In addition to reorganizing the infantry an important change was brought about in the field artillery. For the first two years of the war each battery of the

Canadian Field Artillery had four guns. This led to much confusion when it was necessary to change positions with the British six-gun batteries. Besides, artillery officers were much needed, and although the establishment for a six-gun battery called for eight officers, as compared with five for a four-gun battery, still it was possible for five officers to manage a six-gun battery efficiently. As a result, therefore, the batteries of an entire brigade in each division were broken up to reinforce the other brigades. This change doubtlessly had many important advantages, but it caused much regret on the part of the men who had been attached to the divided batteries. Associations formed through the struggles at Ypres and on the Somme were difficult to break, and many of the men felt the transfers very keenly.

When the Canadians took over the Vimy front in the autumn of 1916, they found the trench systems in a fairly good state of repair. Obviously but little hostile shelling had been encountered for some time and the comparative quiet during November made it possible to carry out extensive improvements. The whole system of defences had been designed and constructed by the French and many of the trenches still bore French names, with, in some instances, the English equivalent. The dug-outs and funk-holes were decidedly comfortable and safe as compared with those on the Somme, although they were not finished or furnished as elaborately as many of those taken from the Germans during the spring offensive. The artillery gun-pits and gunners' quarters were in equally good, or even better, condition, some of them being provided with electric lights, as well as pieces of furniture obtained from ruined homes in near-by villages. Narrow-gauge railways and good roads made easy the transport of supplies and of men. Altogether, the position seemed about as close to "a little bit of heaven" as the Canadians had known for some months. They were not long

"FUNK HOLE ROW" ON THE CANADIAN FRONT

GERMAN "PILL-BOX" ON VIMY RIDGE

Canadian Official Photographs

in inaugurating changes. It might have been fitting that they should enjoy "a little bit of heaven," but it was quite unthinkable that the Huns should enjoy it too. Artillery fire was steadily intensified and trench raids increased rapidly in number and in the daring and skill with which they were carried out. The Germans were peeved at the change of tactics and tried to persuade the Canadians to desist. One of the notices posted in front of the German trenches early in December, 1916, read: "Cut out your damned artillery. We, too, are from the Somme." But these and other similar pleadings were in vain. The Canadians have been credited with introducing the trench raid into modern military tactics[1] and they certainly did much to perfect it, making it one of the most effective means of wearing down the enemy's *moral,* as well as of securing information with respect to his movements and intentions. During the winter of 1916–17, therefore, trench raids formed an important part of the preparations for the spring offensive.

Successful trench raiding, however, presupposed much skilful and daring patrol and scout work. Patrols were always carefully organized and worked in close cooperation with the men in the trenches. Thus, the latter knew the number of men in the patrols, the time and the place that they would leave the trenches, the ground that they were expected to traverse, and the time when and the place where they would return. Knowledge of these details enabled the men on guard in the trenches to discriminate between hostile and friendly parties, a factor of great importance, especially on dark and foggy nights. The duties assigned to these patrols usually consisted in reconnoitring the enemy position This frequently took them right up to the enemy parapet and at times into his trenches. In addition, they watched for enemy detachments engaged in work similar to their own and endeavoured to counter their

[1] See Vol. III, p. 278 et seq., of this series.

efforts, or check any attempts at a surprise attack. They also noted any enemy working parties that might be taking advantage of the darkness to strengthen their wire or other defences, and either disposed of them with bombs or reported them to the machine gunners for special attention. Sometimes it was possible to fix up a temporary post for a Lewis machine gun in No Man's Land to fire point-blank on such parties. This procedure involved many risks and was followed only when some special feature of the terrain provided a measure of cover.

Thus was No Man's Land haunted every night by small groups of men from the opposing armies who moved about silently and stealthily, stalking one another with all the relentless cunning and patience of beasts of prey. Rifles were seldom used, for a rifle flash served to draw hostile machine-gun fire. Bombs were the most common weapons, but if the enemy were encountered unexpectedly at close quarters, a short, bitter struggle with knives decided the issue.

The Canadians were not content to perform these hazardous duties only during the night. Where the ground was sufficiently broken to provide some cover, patrols went out during the day as well. The almost impudent boldness that prompted this daylight work was an important element in its success. The Germans obviously did not expect it, for on a number of occasions Canadian patrols were able to enter and examine portions of their trench systems and return to their own lines without even attracting the attention of an enemy sniper. It was a Red-Indian type of warfare, and it is not improbable that many of the five thousand Indians in the Canadian Corps were the most able and outstanding exponents of such tactics. In any case, it did much to make trench raids successful; for it injured an optic nerve of the German Intelligence Bureau, while at the same time it provided the Canadian Staff with much valuable information.

But if the Germans were not a match for their adversaries in these lonely, savage struggles between the lines, they were past-masters in the art of underground warfare. On the Vimy front they had dug many miles of underground galleries which were connected with their rear areas by deep tunnels. In addition, they had very excellent deep dug-outs which they used for officers' quarters, regimental headquarters, dressing stations, etc. These were usually provided with a number of exits, so that in the event of one or more of them being blown in suddenly by shell-fire or bombs the remaining ones would provide a means of escape. Generally these underground quarters were not only commodious but comfortable, and in some cases, thanks to the Germans' vandal nature, were elaborately furnished with French furniture. They were deep enough to withstand anything but the very heaviest shells, and the interiors were usually lined throughout with close-fitting mining forms, which were often papered or painted or otherwise decorated. The amount of manual labour involved in the construction of these great underground labyrinths was almost beyond computation. It was perhaps not surprising, therefore, that the Germans considered their position impregnable. If conditions had remained as they were a year before, it would have been beyond the power of the Allies to dislodge them. But the ascendency was definitely passing from the Germans. The great weight of the new armies and the all but inexhaustible supplies of guns and ammunition were turning the scale. The character of the war was distinctly different to what it had been during the previous winter. The Canadian troops, in common with all of the others of the British Expeditionary Force, felt the change, and they were thrilled with a new hope. No longer was it necessary for them to face deluges of hostile shells without being able to retaliate; nor would they ever again be required to attack without adequate

artillery preparation and support. One of the great crises in the vast conflict was passed.

Hitherto, by far the greater number of the raids had been carried out at night. This meant that the enemy was comparatively secure during the daytime, and so was able to bear with equanimity the inevitable strain of such actions. A change was now decided upon. More raids were to be attempted in daylight. These tactics were distinctly audacious, for, with visibility normal, it was all but impossible to cross No Man's Land unobserved during the day. Various devices were adopted to offset the disadvantages of daylight. Screens were made by smoke bombs, if the wind were not too strong. The men detailed for the raids wore clothing the colour of which was made to harmonize as nearly as possible with the colour of their surroundings. Foggy weather was taken advantage of and barrages and feint attacks were used to mislead the enemy. Artillery preparation, almost always required, had to be thorough. Great responsibility was attached to the forward observing officers of the field artillery; for it was usually the field-guns that were employed to cut lanes in the wire in front of the enemy trenches. The work of the artillery in cutting wire on the Vimy front developed steadily in efficiency, so that the infantry were soon able to advance over No Man's Land feeling reasonably certain that the wire would not constitute a serious danger. This was naturally an important factor in giving the men confidence and assurance. Earlier in the war, raiders were frequently shot down while attempting to get through the wire, and their bodies would remain suspended perhaps for days before some daring spirit was successful in crawling out and dragging them in for burial. The trench expression in referring to a supposed casualty, "Oh, he 's on the wire," carried more than a touch of grim meaning.

One of the most important of the early raids by the

Canadians on the Vimy front occurred on December 2nd, 1916, near the village of Roclincourt. A battalion volunteered for the task and carried it out with great skill and thoroughness. The raiders were divided into three parties. Those operating on the flanks were to cut off the German communication trenches and thus hem in a section of trench upon which all three parties were then to converge. The flank parties, after a sharp struggle, reached their objectives. The centre group, however, was stopped at the wire entanglements. But the men quickly spread out along the wire and effectively bombed the German line. By this time, the flank parties were able to close in, inflicting heavy casualties and almost completely wrecking the enemy trench.

During the succeeding two weeks a number of smaller, but none the less daring and successful, raids were carried out at various points along the line. No part of the German line fronting the Canadians was immune. The element of surprise was seldom lacking and the swift hand-to-hand struggles with knives and bombs terrorized and baffled the Germans. In addition, much damage was done to their lines, prisoners were taken, and an occasional machine gun was captured or destroyed. One of the surprising features of these adventures was the small number of casualties in the attacking parties. Frequently they would return without losing a man, after having caused very considerable losses to the enemy. The cumulative effect of such tactics was, therefore, of much importance.

About the middle of December an elaborate and formidable daylight raid was planned. The section of trenches to be attacked was thoroughly reconnoitred by both land and air scouts. Every man detailed to take part was fully instructed in the nature of the ground and the precise duty that he was to perform. On the morning of the 20th of December about four hundred yards of the German lines were hemmed in by artillery fire. At the same time the Stokes guns

were used to place a screen of smoke bombs in front of the machine gunners in the German support lines. Batteries were also detailed to place a heavy barrage on the enemy front line. The attacking infantry at once crawled out into shell holes in No Man's Land to avoid the retaliatory fire which was very likely to be concentrated on the Canadian front line. The instant the barrage lifted, they attacked with such impetuosity that the Germans were overpowered. They penetrated to the enemy second line and spent an hour and a half in clearing out and destroying dug-outs, smashing up machine-gun posts, and generally demoralizing the enemy position; and were able to return with fifty-eight prisoners, their own total casualties being less than a dozen men. The Germans, evidently thinking that the Canadians intended to hold the captured line, bombed their way into their own empty trenches, thus providing some amusement for the raiders, who by that time were safely back in their own lines. This performance was so satisfactory that it was soon copied at several other points along the front.

Another brilliant raid was carried out on Christmas morning, 1916, by a battalion from Eastern Canada. It was assumed that the Germans would not be expecting an attack on that day and the assumption proved correct. Very careful note had been taken of all the enemy's sniping and listening posts and machine-gun emplacements, and these received special attention during the raid. Explosive charges were placed under his wire; and at the time set for the attack these charges were blown up, and the Canadians — a hundred strong — rushed through the gaps thus made. They carried out the usual terrorizing tactics, bombing dug-outs, and taking prisoner or killing any who offered resistance. German distress signals brought up reinforcements, before which the Canadians retired with but four casualties. More than fifty Germans

were killed, and in addition a few prisoners were taken. The episode put the German Command in a bad temper, and they immediately staged a rifle-grenade bombardment which lasted for some hours.

In spite of this "show," Christmas day, 1916, was remarkably quiet. On some sections of the front scarcely a shot was fired during the greater portion of the day. Fraternizing was forbidden, however, although it is doubtful if the prohibition was necessary. The Canadians had come to have a feeling of contempt for the enemy that made it extremely unlikely that the *rapprochement* of the former Christmas seasons at the front would be repeated. The weather was cool and cloudy and there was little rain or any untoward incident to mar the quiet enjoyment of the "bukshee"[1] rations and the vast array of Christmas parcels and mail from Canada.

During Christmas week the Germans tried some characteristic retaliation. Fully three thousand phosgene-gas shells were thrown into Bully Grenay. However, by the end of 1916, all the Allied armies were supplied with excellent gas masks and, in this instance, the only casualties were seven French civilians. The uniform success of the raids carried out during December, 1916, led to a whole series of both day and night raids being executed in the following three months. Some of them were little more than daring exploits of two or three, or half a dozen men; others were miniature battles in which thousands were engaged. With but one or two exceptions, these actions were successful. The testimony of the prisoners taken proved beyond peradventure the terrorizing and demoralizing effects on the enemy. Not only that, but a steady stream of current information concerning the disposition and plans of the enemy troops was obtained,

[1] Probably a corruption from *buksheish*, a Persian word meaning "a gratuity." Applied indiscriminately in the army to anything extra or additional.

and great material damage was done to their trench systems and forward supply bases. At the same time, these No Man's Land experiences developed wonderfully the resources and cunning as well as the confidence of the Canadian soldiers, individually and collectively. Altogether the raids were a factor of prime importance in the vast preparations that were made during the winter of 1917 for the spring offensive.

An exploit of two Canadians on New Year's eve illustrates the coolness and daring exhibited by the members of small raiding parties. Shortly after dark they crawled out into No Man's Land, wriggled through the enemy's wire and got into his trenches. They then worked their way a short distance along the trench until they came to a suspected sentry beat. After concealing themselves for several moments they were rewarded by seeing the sentry approach. They seized him before he could give any alarm, and were about to make back to their own lines with their prisoner, when another German came out of a near-by dug-out. He promptly received and accepted an invitation to join the little party. Such episodes were of no great importance in themselves. The Germans carried out similar kidnapping expeditions, not always unsuccessfully. But they illustrated clearly certain aspects of trench warfare. It was pre-eminently a contest in which ceaseless, lynx-like watching, resourcefulness, patience, and iron nerves were required of the individual soldier. Over-rashness or a slip in judgment usually meant death. Audacity and originality in devising ways of surprising the enemy and of keeping his nerves taut were prime essentials, and in such tactics the Canadians were temperamentally happy.

One of the most successful daylight raids carried out by the Canadians was made about the middle of January, 1917, in the direction of Cité Calonne, a suburb of Lens. Preparations commenced several

days before the raid, as the enemy's wire defences were very heavy and deep. It was necessary for the artillery and trench mortars to smash sections of this wire before the infantry could advance. In order to keep the enemy at a nervous tension over a considerable section of the line and to confuse them as to the exact point to be attacked, this work was carried out on a front of over two miles. The ground was covered with fresh snow, making it easy for sentries to spot moving objects, so that precautions had to be taken to ensure that the enemy be forced to remain in his dug-outs until his trenches could be entered. To accomplish this, a carefully planned combination of barrage was arranged. The Stokes guns were used to throw smoke bombs, so as to screen the section from enemy artillery observers; the artillery — both field and 4.5's — placed a heavy barrage of gas, shrapnel, and high explosive over and around the area to be raided, and the machine gunners kept a stream of bullets skimming over the German parapet. It was physically impossible for the Germans even to keep a periscope up with which to observe events in No Man's Land. In addition, arrangements were made for blowing up a mine just before the raid commenced. The carrying out of many of these preparations naturally made complete surprise impossible. Nevertheless, there are few more nerve-racking experiences that troops may be called upon to endure than to remain for days under heavy artillery fire ready to meet an inevitable attack, the precise location and time for which can only be conjectured. At the same time it should be noted that, owing to the continued success of the raids made by the Canadians, the Germans were holding their front lines lightly. The men who occupied them were mostly mere "cannon fodder," or those who were undergoing punishment for a variety of military offences. Their best troops were held in reserve.

The actual raid took place on a front of about eight hundred yards. The enemy's wire defences had been completely smashed by the artillery, and as soon as the mine had been exploded a barrage was dropped behind it and the raiding parties quickly crossed No Man's Land, practically unopposed, in broad daylight. These movements had been carried out so quickly that the Germans had not had time to emerge from their dug-outs to organize any strong resistance. Reinforcements were kept from reaching them by shelling their communication trenches with high explosives.

Mopping-up parties were left to clear out and destroy the front-line dug-outs, while other groups of raiders penetrated some three hundred yards into the enemy position, wrecking dug-outs and machine-gun nests, destroying stores, and killing any "Fritzies" who refused to surrender. Exactly an hour was taken up, at the end of which time the raiders returned to their lines with one hundred prisoners, including a company commander, and also one machine gun. It was a record haul of prisoners for a single raid and caused other British units to strive with redoubled energy to surpass it. A few weeks later a battalion of London Territorials brought back one hundred and twenty prisoners, an achievement that probably was not again equalled in a single raid during the Vimy period.

This raid, too, was marked by some human elements that were seldom present on such occasions. Generally, a single summons to surrender was shouted down a dug-out, and if the response was not prompt and in the affirmative a mobile bomb was thrown in which would destroy the dug-out and its occupants without further parley. Consequently, Germans thus trapped usually put up their hands and goose-stepped out of their underground shelters in the most satisfactory fashion. In this instance, however, "an officer with a handful of bombers stood at the entrance of a deep dug-out crowded with Boches. In his best German,

such as it was, he ordered them to come out and surrender, as he was going to blow up the dug-out. A voice replied in excellent English, 'Yes, we are coming.' He waited, but none appeared. He repeated his order more emphatically. He got the answer, 'Yes, yes! one minute, please!' And again he waited and still no one came forth. But time was short and he had more work to do. Once again he summoned them, adding that his next summons would be a bomb. Then at last and just in time the Boches came clambering out, obviously much relieved and in a great hurry to surrender. Finally appeared their officer with dignified deliberation. 'I had to burn my papers,' he explained, apologetically. The Canadian glared at him indignantly. Then his face relaxed in approval. 'All right,' said he, 'we will call it square. But two seconds more and you would have been in kingdom come.' ''[1]

Another Canadian became detached from his party and did some dug-out clearing on his own account. He was particularly desirous of securing a good German helmet, so when in response to his summons to surrender a lone German appeared without his helmet, he promptly sent him back to bring it.

Such incidents could only occur on raids in which the artillery was working like a well-oiled machine. The curtain fire behind the German supports effectively prevented them bringing up reinforcements and the raiders were able to "carry on" without interruption or any unseemly haste.

During the latter part of January and the most of February the ground remained solidly frozen and the Canadians took every advantage of the improved conditions. A raid on some portion or other of the German lines was almost a daily occurrence. In the aggregate, several hundred prisoners were captured during the five or six weeks of frosty weather. Besides, many hundreds of the enemy were killed or wounded and im-

[1] *Canadian Gazette*, February 8th, 1917.

portant material damage was done to their position. Nor were the Canadian losses heavy. In almost every instance the number of prisoners taken exceeded their total casualties. The advantages derived from the training in the Corps schools in France were also brought into evidence. On several occasions when the officers and N.C.O.'s in charge of raids became casualties, scouts or senior soldiers of parties would take charge and carry on until the objectives set had been attained. Even the most strongly fortified portions of the German line were not immune from attack.

On the evening of the 14th of February, parties from some western battalions raided one of these strongholds. At the junction of the Vimy and Lorette ridges, east of the village of Souchez, is a small, isolated hillock, which was known by the descriptive cognomen of the Pimple. Its flattened top commanded an excellent view of the wide valley through which the Souchez stream flowed, so that it was considered to be more than probable that the Germans used it for observation purposes; and further, it was known to be bristling with machine guns. As a consequence, it came in for a good deal of attention from the Canadian artillery. It was against this strong point that the raiders launched their attack. They penetrated the German lines sufficiently to be able to wreck a number of mine shafts, machine-gun emplacements, and even trench railheads. Besides, they brought back one officer and forty men as prisoners. In view of the formidable character of the position the success of this exploit was particularly creditable.

Toward the end of February a Canadian brigade carried out a "minor operation" covering a frontage of some two thousand yards and in one place penetrating to a depth of seven hundred yards. The ground crossed between the lines sloped gradually towards the Canadian trenches, but every inch of it had been blasted and torn by months of continuous shell-fire.

WAITING FOR DARK, WHEN SHELLS GO UP TO THE LINE

" EMPTIES "

A few of the empty cases of shells fired in the bombardment of Vimy Ridge

Canadian Official Photographs

The raiders met with stiff opposition in crossing No Man's Land. They acted with great daring and steadiness, however, and rapidly cleared the German front line. In their support lines the Germans offered a bitter resistance, and no quarter was given or asked for. The casualties on both sides were, consequently, comparatively heavy. Nevertheless, after an absence of an hour and a half the Canadians were able to return to their own lines, having gained all their objectives and having captured forty-five prisoners. The information gained on this raid proved of much value in later operations. In addition to this important action, no fewer than five other small raids were carried out about the same time and within a few hours of one another. These were chiefly of value in establishing identification of the German troops. As a matter of fact, the long series of successful raids enabled the Canadian Intelligence Staff to formulate accurate statistics concerning the names and the strength of the units opposed to them, as well as the character of the German reserves and the times when and places where reliefs came into the trenches, not to mention the knowledge gained of the physical features of the enemy position and his probable intentions. Such information was of the greatest value.

About this time, however, the Canadians encountered their first and only serious failure of the winter of 1917. This occurred on a portion of the front held by the 4th Division and was largely the result of a determination to use cloud gas. During the winter months the prevailing winds on the western front were from the east, and consequently the Allies were at a disadvantage in so far as the use of cloud gas was concerned. Even when the wind was from the west in winter it was usually shifting and uncertain. This unstable character of the winds at that season, difficult to predetermine, made the use of cloud gas an extremely risky expedient in an attack. Much atten-

tion was necessarily paid to the reports of the Meteorological Service. These were signalled along the front once, and sometimes twice, every twenty-four hours. The frequency and comparative accuracy of these reports were of great value in selecting a time for projecting gas across No Man's Land. But at the best, during the winter, the final choice of a "zero hour" for a raid preceded by gas clouds could only be arrived at a brief few hours before the attack would have to be made. As it turned out, this particular raid demonstrated some of the treacherous and dangerous qualities of this German-devised weapon.

The position that the raiders proposed to attack was carefully reconnoitred. Complete rehearsals of the raid had been carried out, the artillery had smashed the wire entanglements, and everything was in readiness at the time appointed early on the morning of February 27th. The artillery opened up a heavy bombardment; but owing to adverse conditions the gas attack could not be attempted and the raid had to be postponed at the last minute. The men were kept in readiness, however, waiting for a change in the wind, in order to proceed with the attack, a change that did not come for some forty-eight hours. Meanwhile the men were much fatigued with the long strain of "standing to" in the cold, muddy trenches. But an even more serious feature was the escape of two German prisoners from a compound in the rear. These men evidently obtained details of the proposed raid which they conveyed to the German lines. The element of surprise, so essential to the success of such attacks, was, therefore, entirely lacking. The Germans established new machine-gun posts which they kept masked until the time of the attack. Early on the morning of March 1st the wind changed temporarily and the artillery barrage and bombardment were renewed. Two waves of gas were used, but as soon as the infantry went "over the top" the Germans opened a furious

machine-gun fire, and heavy casualties resulted before the men could obtain cover in shell holes. These shell holes were still filled with the heavy, poisonous gas, and many wounded men were overcome by it. Defeat was not to be thought of, however, and another wave of gas was sent over. But the wind suddenly changed and blew the gas back over the Canadian lines. The Germans were quick to seize this advantage and, having been reinforced, they counter-attacked. It was one of the rare occasions when the opposing forces clashed in the middle of No Man's Land, in a straight stand-up, hand-to-hand fight. The machine gunners of both sides were enforced onlookers, owing to the danger of shooting down the men of their own respective forces. Bayonets were practically the only weapons it was possible to use, and they were used with bitter determination by both sides. A few Canadians did reach the German lines and wrecked their position very considerably, but the casualties were heavy and more than offset any advantages attained.

Late in February, too, the Germans made one of their infrequent counter-raids. It was a small affair and lacked any element of "punch." A small party was able to surprise the crew of a Lewis machine gun, and while one member of the crew was giving the alarm they overpowered his mate and made off with the gun. They were at once pursued by a party of bombers, who succeeded in recapturing the gun. Meanwhile, a sergeant and a corporal were hurrying along the Canadian trench ordering the men to "stand to," when suddenly, at a traverse, a party of three Germans confronted the corporal and ordered him to halt. At the time he was carrying a loaded Verey-light pistol, and this he quickly discharged in the face of the nearest German. The corporal was himself slightly wounded, but the Germans made a hasty retreat to their own lines, leaving behind them a supply of bombs much bespattered with blood.

The Germans on a number of other occasions attempted to make counter-raids, but it was a style of fighting for which they, unlike the Canadians, were temperamentally unfitted. In mass attacks they would advance with almost stupid bravery time and again. However, when it came to individuals matching their craft and skill against other individuals they proved much inferior to their adversaries. Frequently they were blotted out by artillery and machine-gun fire before they could get across No Man's Land.

Although the raids carried out by the Canadians during the first week in March were not designed on as large a scale as those earlier in the year, nevertheless they resulted in an immense amount of damage to the enemy's position. In one of these raids men from a Manitoba battalion attacked the German trenches at several points along a frontage of five hundred yards. Numerous dug-outs were destroyed; but the outstanding incident of the raid was the exploit of a sergeant named Lloyd, who destroyed a mine shaft in which an engine could be heard at work and in which many Germans had taken refuge to escape the Canadian artillery fire. Lloyd set a heavy portable charge of explosive at the entrance, and, although he must have known it would be almost impossible for him to escape, lit the fuse. Great masses of earth were blown into the air and the German mine was completely wrecked. Many of the men who occupied it were killed, but the intrepid sergeant was buried under tons of earth and débris. A few days later, men from Ontario and Saskatchewan units were particularly successful in destroying a number of enemy machine-gun and snipers' posts, returning to their lines within twenty-five minutes of the time they set out. Such actions demonstrated the swiftness and precision that the Canadians had acquired in carrying out raids. They were practically undisputed masters of No Man's Land.

By the 1st of March the crisp, frosty weather of

January and February had become mild and rainy and the whole battle area was again a sea of mud. Occasional flurries of snow and driving sleet storms added to the discomfort of the men. Nevertheless, during the latter half of March and the first week in April, raids occurred with much greater frequency, although their character changed considerably. No large raids were attempted. Instead, a species of hornet-like tactics was followed. Forays were made at all hours of the day and night by small groups of men. This constant stream of predatory incursions must have been very trying to German nerves, and the frequent taking of prisoners kept up-to-date the identification of the enemy troops.

It is of interest to note that, broadly speaking, the long series of trench raids had in it elements that exemplified nearly every phase of the preparations necessary for any major attack. In the first place, it was an important factor in securing information with respect to the movements of the enemy and the nature and condition of his defences. Dependable knowledge of such matters was always a first essential in preparing for an offensive action. In the second place, the raids provided splendid training for "storm" troops, giving them both professional experience and moral stamina. Besides, the co-operation among the several arms of the Service, notably, perhaps, between the infantry and the artillery, was a most useful form of discipline. And further, there were many evidences that the raids lowered, very perceptibly, the *moral* of the German troops, while at the same time they pinned the enemy tightly down to his own lines.

3. Preparations for a Great Battle

One lesson that the Allies had been taught by bitter experience earlier in the war, was that insufficient preparation for an attack was always a costly blunder.

In so far as the Vimy attack was concerned the blunder was not to be repeated. Nothing was left to chance. In the first place, throughout the winter a minute study was made of the physical and defensive features of the Vimy front. For this purpose, as already pointed out, the trench raids were of great importance. The testimony of prisoners and the "first-hand" information brought back by the raiders were supplemented from many sources. Thus, for example, much was learned from many of the refugees who had been driven from their homes on the ridge early in the war. As an illustration of the character of this information an extract from the testimony of M. Dasort may be taken as typical. M. Dasort for a number of years before the war resided in the grounds at La Folie farm. He stated that: "La Folie farm was originally a château, two storeys high, with two deep cellars each approximately thirty feet by fifty feet, vaulted roofs, with one entrance to cellar on the south-west side of the building and the other entrance approximately at the centre of the building on the north-west side.

"The château was allowed to go into disrepair, after which it was permitted to be used as a farmhouse and a new château was built a few hundred yards north of the farm.

"The wood to the north of the farm is very thin, principally orchard with a few fir trees.

"The wood on the eastern slope of the ridge, immediately south-west of the farm grounds, has recently been planted and is not thick.

"North-west of the farm, on the eastern slope of the ridge, there is a fir wood fairly well grown with trees every two yards."[1]

That a great deal of time and effort was expended in collecting and digesting evidence of this nature, indicates in some measure how the chance element was eliminated in preparing for the attack. No fragment

[1] Testimony of M. Dasort, 3rd Canadian Division, I. G. 774.

of information, however trivial it might seem to be, was neglected. Whenever possible, Intelligence officers searched German dead as well as German prisoners for papers of military importance. They also endeavoured to make things hot for enemy spies who attempted to operate in the Canadian lines. In this latter task they were permitted to search conveyances, billets, or any other quarters that they suspected of harbouring suspicious characters.

Another means of obtaining a knowledge of the enemy's defences, particularly of his signalling system, was the use of instruments for "listening-in" on the German telegraph and telephone lines. These were installed in the front-line trenches, and frequently the operators picked up important messages relating to enemy activities. They were also of much value in locating enemy batteries. Similar instruments were used by the Germans, and it was necessary to adopt measures to prevent messages "leaking" by such means. For this reason, it was forbidden to use "earth circuits" for telephone or telegraph instruments within three thousand yards of the front-line trenches. The use of "metallic circuits" did not entirely prevent leakage, but it was of material assistance. Again, "Fullerphones" were used by the infantry in advanced areas, and these, when used as "buzzers," were practically leak-proof. Codes were commonly used by signallers, but they were frequently too easily decoded to be of great value.

These "listening" instruments were of great assistance to the engineers and Intelligence officers in working out the probable positions of the German signal stations and lines of communication in the forward areas. Investigations at the time of the advance over the ridge demonstrated that these calculations were substantially correct.

Observers for the artillery often drew attention to changes in the enemy's defences above ground, and

those in kite balloons kept a keen look-out for enemy activity far behind their lines. Owing probably to the fact that the Vimy escarpment destroyed the effectiveness of the kite balloon, it was not so extensively used as on the Somme.

Without doubt, however, the Air Service was the premier source of information concerning the enemy territory and activity. The Duke of Wellington is said to have always wanted to see "what is on the other side of the hill." To accomplish that, he had to rely largely on cavalry patrols, whose function was to defeat enemy patrols and keep in touch with their main body. In a "war of positions," however, cavalry, as such, can be of little service. Consequently, other means had to be devised for watching the enemy on " the other side of the hill." The advantages possessed by aircraft were naturally quickly recognized and applied early in the war.

The air pilots and observers saw everything that was to be seen in the enemy territory on days when flying was possible, and their cameras furnished precise and permanent records of the whole battle area. It was mainly from these photographs, developed and printed within a few hours after they were taken, that the excellent maps of the trench systems and " centres of resistance" were prepared. The maps were simply indispensable, although after the artillery had finished with the enemy's defences it was sometimes impossible to recognize on the ground the features that were shown on the maps.

While scouting was "the supreme task" of the Air Service, it was inevitable that the rival forces should have frequent clashes in the air. Neither side could afford to ignore the other, for the same reasons that hostile cavalry patrols were forced to clash in open warfare. During the winter of 1917 there was keen rivalry for supremacy in the air. For a time the Germans practically abandoned aeroplane scouting

FLAG MARKING SIGNAL HEADQUARTERS FOR AEROPLANES

SHELL-TEMPTERS: GERMAN DUMMY GUNS ON VIMY RIDGE

Canadian Official Photographs

and concentrated their energies on destroying Allied planes. They relied on small machines which possessed unusual speed as well as mobility and which flew generally at great altitudes. They seldom attacked singly, but patrols of two or three, or even squadrons of seven or eight of these planes, would swoop down from their hiding-places in the clouds to attack too venturesome or unprotected Allied scout planes. The latter were built for stability rather than for speed and manœuvring capacity, so that in a surprise encounter with the swifter German planes they seldom lasted longer than a few minutes. Such tactics were not new. They had been initiated by the British early in the war and had been decidedly effective in overcoming the supremacy then held by the Germans in the air. It was, therefore, a bad omen when day after day British scouts were driven down without being able to inflict any notable damage to the German planes. It said very much for the valour of the British airmen that they refused to be beaten and maintained their scouting patrols in spite of serious losses. Towards the end of March three additional high-speed German planes came on the Vimy front. They were painted red and for that reason were easily distinguished from other planes. For a few days they seemed in a fair way to cripple seriously the British air force in that area. Then, one evening early in April, three British planes of a new design appeared on the front from the direction of Arras. The Canadians watched the newcomers with unusual interest as they made their way to the northward, flying at a greater height than was usual for the scouts. The German "reds" were also up and, with the over-confidence born of too much success, at once intercepted the British planes. The combat lasted less than five minutes. A few quick manœuvres for position, a dozen shots from a machine gun, and the leading German plane wobbled down behind the Canadian lines. The other "reds" took the shortest course

to their aerodromes. It was the turning of the tide. The new planes proved to be quite the equal, if not the superior, of those of the Germans in speed and climbing capacity, and during the remainder of April, at least, the latter were clearly beaten in the air.

This intensive reconnaissance of the whole Vimy area naturally revealed both the strong and the weak points in the enemy's defence and so made clear the character of the preparations that would be necessary to overcome the former and to take advantage of the latter. The enemy had had ample time and opportunities for constructing his defences in detail. Consequently they were as nearly impregnable as he could make them. From his complex underground works he was in a position, not only to repel, but to inflict heavy losses on any force that might attempt, by a frontal attack in the open, to force his retirement beyond the ridge. Fortunately, a frontal attack of that nature was not contemplated. Although a tremendous amount of labour was involved, the British decided to construct a corresponding underground system, which would not only be of importance for defensive purposes, but would be designed more particularly for offensive operations.

During the summer of 1916, British labour battalions, under the supervision of the Royal Engineers, had made considerable progress in the construction of three parallel tunnels, leading from the support to the front-line trenches. They were placed at intervals of about half a mile and were roughly six hundred yards long. In designing them, the engineers had in view their continuance beneath No Man's Land and important sections of the German defences. This latter task was carried out during the first three months of 1917, under the joint direction of Royal Engineers and Canadian Engineers. Each of the tunnels was about six feet high and five feet wide and was sufficiently deep to withstand the most severe bombardments.

Exits were constructed at convenient points in the trench system and several battalions were provided with headquarters in lateral galleries leading from the main tunnels. Electricity, generated in underground engine rooms, was used for lighting purposes throughout. Narrow-gauge railways were laid as the work on the tunnels progressed, and these were of great service in removing the excavated material and also for bringing in ammunition. Numerous telephone lines connected the several headquarters in the tunnels with their corresponding brigade and divisional headquarters in the rear. As the tunnels were dug through chalk-like rock formations, much labour was involved in disposing of the material removed in a manner that would at least confuse and deceive the enemy. By far the greater portion of it was put in sand-bags and conveyed on small hand-cars to considerable distances in the rear. But while the white chalk was difficult to conceal, it possessed some compensating advantages, the chief of which was that the roofs of the tunnels required but comparatively little support. This meant a saving in timber as well as in labour. Further, the porous quality of the chalk enabled it to absorb moisture quickly, so that the tunnels were usually dry.

Early in April the "blind ends" of the tunnels almost beneath the German lines were heavily charged with explosives. Fuses were trained back for some distance and the charges were then carefully sealed in with well-filled sand-bags. These charges were held in readiness to give the Germans an added surprise at the hour for the attack on the ridge.

While the tunnels were being completed, other companies of engineers were superintending the construction of light railways, roads, underground cables for telephone communication, as well as securing water supplies and laying water mains to convenient points within easy reach of the trenches. Many miles of light railways were laid to batteries and advanced supply

bases. The existing road system in some places was quite inadequate to handle the ever increasing volume of traffic, so that it was necessary to provide additional ones as quickly as possible. The most notable of these was the one built from Mont St. Eloi, by way of Berthonval farm to the Arras-Bethune road. Between the farm and the Arras road, a distance of about a mile and a half, was a large saucer-like depression, across which it was very difficult to build and maintain a road in the rainy season. Time was short and the road was urgently needed. In this emergency it was decided to construct a plank road from material obtained in forests a few miles in the rear. Many old trees were cut down, under the careful supervision of trained foresters. The logs were quickly sawn into planks at portable mills set up in the forests, and large quantities of the planks were hauled to the site of the road during the frosty weather of February, and construction was hurried forward. Although this road must have been easily visible from hostile aircraft, it was not subjected to much artillery fire. It was of the utmost importance in getting men and supplies forward during the fortnight that preceded the battle. As soon as the dusk of evening had fallen, streams of General Service wagons and limbers loaded with supplies of ammunition and provisions appeared on the road interspersed with working parties and relieving troops going up to or returning from the forward areas. No lights were allowed and skilful driving was required to keep the counter streams of traffic moving smoothly. Occasionally a tired, sleepy driver would have a momentary lapse of vigilance with the result that the outer wheels of his vehicle would go over the ends of the planks and sink in the mud. Such lapses would sometimes tie up traffic for an hour or more, during which time an undue amount of profanity enlivened the proceedings. So satisfactory was this plank road from the point of view of quick construction that imme-

diately after the battle another one was built from Souchez to Givenchy by way of the famous Pimple at the junction of the Vimy and Lorette ridges.

In addition to the building of roads, other means of communication between the front and rear areas were carefully provided for. Telephones are indispensable to a modern army. Wires were generally laid overland or along the sides of communication trenches. In such positions they were often damaged by night-working parties, or by hostile shell-fire, particularly during an extended engagement. On the Vimy front the engineers designed an elaborate system of underground cables, leading over areas where communications were sure to be needed and which at the same time would probably be subjected to heavy hostile fire. These cables were connected with terminal boxes placed at convenient points in the rear and in the trenches and tunnels. Every pair of wires attached to the terminal boards was carefully tagged, showing to what units it would afford communication. This involved much pick and shovel work, which was done largely by working parties from the infantry and pioneer battalions. Much of it was necessarily done under cover of darkness and often with hostile machine-gun and shell fire to provide excitement and thrills. Occasionally these working parties came upon filled-in trenches in which French and German dead had been buried early in the war with no mark to indicate their graves. Such gruesome discoveries made the chalky, greasy mud even more loathsome to the men who were called upon to work in it. It was hoped, however, by means of this underground system to simplify the work of the linemen, and to some extent the hope was realized. However, the buried cables were not an entire success. Although generally eight or ten feet underground a high-explosive shell would occasionally make a direct hit and completely disorganize the service over a considerable area. Further, the messages received over

the buried lines were often very faint, a serious defect where the noise from guns required that they should be distinct. As a result, overland lines were again resorted to, to connect rear headquarters and batteries with the front line. They were laid hurriedly, for the most part within three weeks of the battle. Unfortunately, there was scarcely any attempt at co-operation between the units requiring them. Each and every unit laid its own lines with little regard to the convenience or the rights of the others. As a result, the ground in the rear of the trenches was literally covered in places with a network of insufficiently tagged telephone wires. After a German shell had made a direct hit on such a confused mixture of wires, it required clairvoyant linemen to straighten out the mess and re-establish communication within a reasonable time. However, in spite of the lack of system, by means of diligent line patrol work, any serious breakdown was averted when the time came for advancing over the ridge.

Perhaps the most spectacular phase of the preparations for the spring offensive was the work of the artillery. The whole struggle had degenerated into a contest of "positions." The opposing forces were probably more nearly equal in men and material than ever before. They had had sufficient time to organize their positions thoroughly, and under such circumstances only limited objectives were aimed at in any given attack. Efforts were therefore centred on attaining those objectives at minimum cost. Obviously, one of the best means of accomplishing this purpose was the employment of sufficient artillery to batter down the enemy's defensive works and thus make it possible for assaulting troops to advance and to occupy and consolidate the wrecked position. That had been the German method from the beginning of the war; and for almost two years the British had suffered terrible punishment, holding their line with at

times an all-but-despairing patience, until the hour would come when they, too, could employ similar tactics. The hour had come early the previous summer. The great arsenals in Britain and the munition works in Britain and Canada had reached their stride. Day and night during the previous spring, summer, and autumn, division after division of artillery of all calibres, as well as ammunition trains, had rumbled along the roads from the base ports on the English Channel to their appointed positions on the firing line. Many of these guns had been used with terrific effect on the Somme and their work was continued at Vimy. More than that, a seemingly endless stream of new guns was kept pouring into France. Thousands of men, under the direction of engineers and artillery officers, were kept busy preparing battery positions. Ammunition dumps appeared at convenient points and rapidly grew to amazing proportions. No longer were the gunners dependent on pitifully inadequate doles of shells as they had been early in the war. Those conditions were fortunately gone, but they had burned their impressions on the memories of the British and Canadian gunners so that they were filled with an unutterable desire to even the score with the Boche. Consequently, they found keen satisfaction in smothering German raids before they had a chance of becoming dangerous. Then, too, any indications that the Germans were bent on a bombardment, or on placing a barrage, resulted in prompt counter-battery work. In this the Canadian howitzers and 60-pounders were generally exceedingly effective, frequently succeeding in silencing enemy guns. Another form of counter-battery work was carried out by the field guns. It was merely retaliative fire. Thus, if the enemy proceeded to shell a given section of trench, the commander of the battalion that then occupied the section telephoned back to artillery brigade headquarters asking for "retaliation." It was a point of honour on the

part of the gunners to provide the assistance asked for with the minimum of delay. In many instances, it was only a matter of seconds before shells would be falling in the German trenches opposite the position that had been attacked. This close and effective co-operation between the field artillery and the infantry stifled many enemy raids before they had an opportunity even to get under way. But what was of more importance, by greatly adding to the strength of the artillery the British and, consequently, the Canadians, were able to plan and carry out offensive operations on a scale which otherwise would have been either quite impossible or very wasteful of troops. Thus, the long series of trench raids that preceded the attack on the ridge was dependent on efficient artillery support, and a major operation, such as some of the Somme battles or the Vimy attack, was only planned after adequate artillery support was assured.

Every battery was allotted a prescribed section of the enemy position for its special field of action, and it was the business of that battery to be able to strike any required point in its zone at a moment's notice. Direct ranging, that is, ranging in which the gunner could see his target, was not possible, for an exposed battery, or even an exposed gun, would have immediately attracted enemy fire. Further, on the Vimy front the escarpment made it impossible to see from the ground the enemy's artillery positions and other rear defensive works. It was necessary, therefore, for the gunners to obtain the ranges and angles for their targets by indirect means. Early in the war this had been done entirely with the aid of maps and of range-finding instruments. Ammunition was not available in sufficient quantities to be used for target "registration." Daylight and clear weather were essential for this work in order that the observers could determine the proximity of each shot to its target. On the Vimy front it was done with great thoroughness by the Cana-

dian and British gunners. Consequently, target registration constituted the greater portion of the routine work of the artillery for several weeks during the winter of 1917. It was, of course, carried out under the close observation and direction of forward observation officers (F.O.O.'s) stationed at "O Pips," usually well in front of the guns, and, of course, in full view of the targets. Occasionally, too, observers in kite balloons, or in aeroplanes, performed this function. Observers at observation posts or in balloons were connected with the batteries by telephone and reported on each shot, making the necessary corrections in the ranging and angles, until the target was under fire. Aeroplanes signalled the corrections by wireless, or by means of lights, or with Claxton horns. In this manner the enemy wire in No Man's Land, his front and support lines, probable or known machine-gun nests, or observation posts, trench-mortar battery positions, rear assembly areas, communication lines, important cross-roads, and other strategic or tactical points in the enemy's territory, were carefully registered. Every battery also had carefully tabulated "S.O.S. lines," the details of which were literally at the finger tips of every gunner. These were for use in case of distress signals or S.O.S. flares being sent up in the trenches. On quiet nights, when only a small proportion of the guns were firing, the idle guns were loaded and laid on their "night lines." Then in case of a distress signal coming from the trenches the sentry on duty had only to pull the triggers of the guns in order to give the infantry support and at the same time arouse the gunners.

As the spring season approached, the definite superiority of the British in guns and ammunition had been demonstrated beyond doubt. This did not necessarily presage sudden victory. For two years the Germans were vastly superior in artillery and yet they had failed utterly to break the spirit of the Allies. Never-

theless, it was that factor, perhaps more than any other, that changed the character of the winter campaign of 1917 as compared with those of the preceding two winters.

The Canadian Corps' scheme of operations for the attack on the ridge was issued on the 20th of March. According to the detailed plans by divisions[1] the Canadians were to operate on the immediate left flank of the Seventeenth British Corps, the divisions numbering from the right, 1st, 2nd, 3rd, and 4th. The front to be attacked by the Canadians extended from a point nearly a mile north of the centre of the village of Roclincourt, practically to the banks of the Souchez stream, or a little over four miles of line in all.

The ground allotted to the troops of the 1st Division had a frontage of approximately 2,000 yards, and they were to penetrate to a depth of, roughly, 4,000 yards. The frontage, however, was to be materially lessened as the advance proceeded, the left flank having to swing to the right to pass the strongly fortified village of Thelus, units of the 2nd Division being detailed to undertake the capture of that stronghold. The 1st Division comprised the 1st, 2nd, and 3rd Infantry Brigades, under the command of Brigadier-Generals W. A. Griesbach, F. O. W. Loomis, and G. S. Tuxford, respectively. The battalions detailed to initiate the attack on this front were the 5th, 7th, 8th, and 10th of the 2nd Brigade, and the 13th, 14th, 15th, and 16th of the 3rd Brigade. The 1st, 2nd, 3rd, and 4th of the 1st Brigade were to be placed in reserve for the initial stages.

The 2nd Division, comprising the 4th, 5th, and 6th

[1] During the winter of 1917, the Canadian Corps formed a part of the British First Army under General Sir Henry Horne. The Corps Commander was Lieut.-General Sir Julian Byng. The Divisional Commanders were Major-General A. W. Currie; Major-General H. E. Burstall; Major-General L. J. Lipsett; and Major-General D. Watson. For the Vimy struggle, one British brigade was also under the command of Sir Julian Byng. On their right flank the Canadians were supported by the Seventeenth British Corps, under Sir Charles Ferguson.

Canadian Official Photograph

BRIGADIER-GENERAL W. A. GRIESBACH (on right), C. M. G., D. S. O.

Canadian Brigades and the 13th British Brigade were to attack on a frontage of about 1,300 yards, on the immediate left of the 1st Division. The officers in command of the brigades were, respectively, Brigadier-Generals R. Rennie, A. H. Macdonnell, and H. D. B. Ketchen. The 18th, 19th, 20th, and 21st Battalions composed the 4th Brigade; the 22nd, 24th, 25th, and 26th Battalions, the 5th Brigade; and the 27th, 28th, 29th, and 31st Battalions, the 6th Brigade. The objectives set for the division required a penetration of, roughly, 3,500 yards, but their frontage was to widen as the attack progressed, so as to include the village of Thelus. At the outset, the 6th Canadian and the 13th British Brigades were to be held in reserve.

On the northern flank of the 2nd Division, the attack was to be undertaken by the 3rd Division, on a frontage of about 1,500 yards. The 7th and 8th Brigades, under the command of Brigadier-Generals A. C. Macdonell and J. H. Elmsley, respectively, were to initiate the attack, while the 9th Brigade, under the command of Brigadier-General F. W. Hill, was to be held in reserve. The Royal Canadian Regiment, the Princess Patricia's Canadian Light Infantry, and the 42nd and 49th Battalions comprised the 7th Brigade; the 1st, 2nd, 4th, and 5th Canadian Mounted Rifles, the 8th Brigade; and the 43rd, 52nd, 58th, and 60th Battalions, the 9th Brigade. The average depth of the thrust on the front of the 3rd Division was to be, roughly, 1,500 yards. At the northern extremity of the Canadian line, the 4th Division was to carry out the attack. The frontage allotted to this division was nearly a mile and a half in extent. This, coupled with the extremely difficult nature of the terrain to be traversed, resulted in relatively shallow objectives being selected. The units comprising the division were the 10th, 11th, and 12th Brigades under the command of Brigadier-Generals E. Hilliam, V. W. Odlum, and J. H. MacBrien respectively. The 10th Brigade was made up of the 44th,

46th, 47th, and 50th Battalions; the 11th Brigade, of the 54th, 75th, 87th, and 102nd Battalions; and the 12th Brigade, of the 38th, 72nd, 73rd, and 78th Battalions. The 10th Brigade was to be held in reserve.

On reaching their final objectives the 1st and 2nd Canadian Divisions were to push forward patrols through Farbus village and Station Wood as far as the Lens-Arras railway. The 3rd Division was to send out patrols towards Vimy and Petit Vimy with a view to ascertaining whether or not those points remained occupied.

Towards the end of March, the artillery commenced the long preliminary bombardment of the enemy position. This grew steadily in volume during the succeeding two weeks. Barrages were rehearsed, and every target that the guns had registered, as well as every section of the enemy trench system, was submitted to perhaps the most searching and the most appalling artillery fire that had been known up to that time. The sharp, ringing reports of the field-guns and the ear-splitting booms of the "heavies" blended into a continuous, reverberating roar, as if the fires of the infernal regions were being fanned to consume the world.

At night the scene was even more awe-inspiring, for, in addition to the never-ending roar, the myriad flashes on the horizon were visible portents of the approaching conflict. During this intensive bombardment a complete attacking barrage was put on on two or three occasions. The enemy, expecting to be attacked, "stood to" and suffered terrible losses. As a result, many of his units did not "stand to" when the attack was made. Although the German guns, notably their 5.9-inch howitzers, were usually active, their comparatively ineffective retaliatory fire throughout the winter had aroused a suspicion that the enemy was masking many of his batteries. If such had been the case it seemed to be a certainty that the intensive

bombardment of his lines would force him to unmask all his guns in order to save his position from destruction. As a consequence, a careful watch was kept at night for any increased enemy artillery activity. Magnetic bearings were taken of gun flashes and of unusually heavy reports of guns that were suspected to be coming from new enemy positions. A series of these bearings, taken from different points, made it possible to determine approximately the position of such guns. The Air Service was also called in to make investigation, with a view to locating the batteries and making it possible for the heavy guns to give them some attention. The enemy fire, however, did not increase, in spite of the pitiless pounding to which he was subjected. He was clearly outclassed in artillery.

It goes without saying that no military operation is undertaken if, in the judgment of the officers in command, the losses will outweigh the advantages to be gained. In this respect the attack on Vimy Ridge was no exception. The Higher Command had made their estimates of cost, not only in material, but in human life as well. Consequently, it was necessary to make provision for the burial of the dead after the battle and to take adequate measures for bringing in and caring for the wounded. It was first of all decided that the dead should be brought together and buried in cemeteries, rather than where they had fallen. For this clearing of the battle-field, several companies of pioneers were detailed and in case of necessity certain of the battalions in reserve were to be drawn upon for assistance. Fortunately, when the battle eventuated, the number of killed was not so great as had been expected, and the field was cleared with expedition and thoroughness.

Plans for caring for the wounded were made by the Army Medical Corps. The officer commanding the Medical Services selected suitable sites for additional advanced dressing stations. During the winter, par-

ties of stretcher-bearers and of labour units under the direction of engineers were kept busy digging deep dug-outs at the points indicated. In some instances these were "two-storied," the bottom floor of several being about sixty feet below the surface. Several exits were provided, so that these quarters were comparatively safe from shell-fire. The walls were lined with burlap and the quarters made as comfortable as circumstances permitted. As many as three hundred wounded could be accommodated in the larger stations. Windlasses were provided for lowering and raising stretchers with the wounded.

Another duty undertaken by the Army Medical Corps was the placing of sign-boards at the junctions of all trenches indicating the whereabouts of dressing stations. These proved exceedingly valuable for "walking cases," who constituted an unusually large percentage of the wounded on the day of the battle.

Military strategy during the Vimy period was weak, in that it lacked many elements of secrecy. As early as the end of January, 1917, the enemy was, no doubt, perfectly aware that his position was to be attacked. From his vantage points on the ridge he must have observed the ever increasing activity on the part of the Canadians, while his spies and Intelligence Service in general probably supplemented very materially what he was able to see. Then, as if to dispel any doubts he might still have had in the matter, the British and Canadian artillery restated the case in most unmistakable terms. Obviously that was telling the enemy a great deal. That he profited by what he saw and heard was clearly shown by his great retreat to the Siegfried or Hindenburg line on the Somme in March. It was a precautionary measure to obviate the necessity for an even greater retreat in case he lost Vimy Ridge. Between Arras and Souchez his defences were particularly strong, consisting of no fewer than twelve parallel lines of trenches, connected by numerous

Canadian Official Photograph

BRIGADIER-GENERAL G. S. TUXFORD, C. B., C. M. G.

switches and reinforced by many "centres of resistance." But although he considered his position on the ridge well-nigh unassailable, still further defences were undertaken behind the ridge, and by the 9th of April he had already constructed a large portion of the famous Drocourt-Quéant line. It was intended in the first instance as a line of defence for Douai, and it proved to be a serious obstacle in the operations that followed immediately after the advance of the Canadians to the Douai plain.

The intensive bombardment commenced late in March was a further announcement that the attack might come any day and at any hour. The all-important question for the Boche was: "When will the blow fall?" It was equally important for the Canadians that he should not know the answer to that question until the zero hour had struck. On former occasions such information had filtered through to the enemy, and the results had been both tragic and costly. Every effort was made to prevent such a calamity at Vimy. However, it was necessary that officers in the higher commands should have that information and it was conveyed to them verbally. For others, the Canadian Intelligence Staff provided a lusty crop of rumours. Every few days a new day and hour was reported to be the time for the attack. Several feint attacks, supplemented by these trench stories, proved to be decidedly mystifying to enemy spies and to Intelligence officers who questioned Canadians taken prisoners. It was learned afterwards from German prisoners that this element of uncertainty had forced some of the enemy infantry to remain at the "stand to" in the trenches for eleven days prior to the attack. Even under the most favourable conditions in the trenches such a performance would prove exhausting and demoralizing for any troops; but to have to do it under intense shell-fire was sufficient to ruin the strongest nerves and to incur very great loss.

On the 4th of April, 1917, Sir Julian Byng's operation orders to the Canadian Corps opened with the announcement that: "On Z day, which has been communicated verbally to all concerned, the Canadian Corps will undertake the capture of Vimy Ridge from the Commandant's House to Kennedy Crater, in conjunction with the operations of the XVII Corps, whose objective is the southern end of the Vimy Ridge from Commandant's House (exclusive) through Maison de la Côte and Point du Jour to the river Scarpe at Athies."

These orders also gave detailed instructions as to the time, points of assembly, and routes to be followed by each of the units on "Y day" and on the night "Y–Z." Clearness in these details prevented congestion of traffic and general confusion on the several roads and assembly areas, not only prior to and during the attack, but also when the whole line began to bend forward on the afternoon of Easter Monday.

The week before Easter was occupied in adding finishing touches to the preparations. Every one on the front knew that the attack was drawing very near and the men worked with greater tenseness. The news that the United States had declared war reached the trenches towards the end of the week and was hailed as a good omen. About the 5th of April German aircraft made a determined effort to destroy some British observation balloons, but were driven off. This attack seemed to indicate that the German artillery was being roughly handled by the Canadian "heavies" and that the enemy would have been much relieved if the latter had been blinded.

On Saturday, the 7th of April, Corps Operation Orders announced that: "Zero hour is fixed for five thirty a.m. (5.30 a.m.), April 9th, 1917." Zero was first fixed for Sunday morning, but on Friday it was moved forward twenty-four hours to allow the Seventeenth Corps to complete arrangements. At nine

o'clock on Saturday evening the eight tanks allotted to the 2nd Division left their hiding-place in Marœuil Woods, a couple of miles behind Neuville-St. Vaast, and advanced to their place of assembly in the forward area. By noon of Easter Sunday practically every one in the Canadian forward area knew that the attack was only a few short hours away. The artillery fire decreased very perceptibly, which served the double purpose of puzzling the Germans and of giving the gunners a chance to get their ammunition carefully sorted and the fuses set, so that there would be no break in the barrage the next morning. Barrels of water were also placed in every gun-pit to cool the guns when they became too hot to remain in action. The infantry units moved to their allotted positions, each of the tunnels being filled with the men who were to be the first in the attack. All the support lines as far back as the trench system that fringed the Arras-Bethune road were occupied in strength by reserve battalions. The weather was partly clear and the warm sunshine betokened the approach of spring.

4. The Battle of Vimy Ridge

Sundays at the front were much like other days of the week. In fact, many men frequently lost track of the days, esteeming or reviling them all alike. But Easter Sunday, 1917, will always stand out in the memories of the members of the Canadian Corps. For them it was one of the soul-stirring days of the war. Outwardly it was the nearest approach to Sabbath quiet that the men had known in many weeks. But underneath this superficial calm was a multitude of human emotions which were too deep to find utterance. Surely fate was needlessly sardonical in celebrating the Christian festival of the Resurrection by a sacrifice to Moloch.

By 4 a.m. on Monday the last of the units were in the

positions assigned for the attack, and the men not on duty were endeavouring to obtain as much rest and sleep as circumstances permitted. Those who were fortunate enough to be in the tunnels rolled themselves in their great-coats on the hard floor. The weather had turned much colder; the sky became overcast, and squalls of rain and sleet swept across the country from the north-west. The night was very dark and the ghost-like light from occasional trench flares served only to intensify the darkness. The guns kept up much the same reduced rate of firing that they had followed all day Sunday. As far as artillery activity was concerned it was a night of comparative calm and it was not improbable that many of the Germans congratulated themselves that the worst was over for another period. Operation orders required that all watches were to be synchronized at least twice during the afternoon and evening preceding the attack. The routine way of doing this was through the medium of the telephone; but on the eve of the Vimy attack more than ordinary attention was given to secrecy and minute accuracy. In some instances, officers moved from unit to unit during the night, checking the time verbally. Others sent officers to their Brigade Headquarters to have their watches set there. Great importance was attached to this work. A mistake of a single second in the lifting of a barrage or in the advance of the infantry might result in serious casualties in the attacking units.

Shortly before dawn, forward observing officers and signallers made their way to their posts. As day began to break, it became evident that observation, either from the observation stations or from the air, would be very difficult. A strong north-west wind drove low-hanging clouds helter-skelter above the battle-ground. Aeroplane patrols were sure to have difficulty in operating under such adverse conditions. About four seconds before zero hour it was demonstrated that the

timepieces used by the artillery synchronized perfectly. All the guns, with the exception of the trench mortars, ceased firing at the same instant, as if some giant director had poised his baton at the stop, while his orchestra was in the midst of a crescendo. The silence was blood-chilling. Then, exactly at 5.30, every gun on the twelve-mile front opened up. In the dim morning light the scene was terrific. The whole countryside to the west of the Arras-Bethune road was lighted up here, there, and everywhere with "sharp stabs of flame." The earth trembled with the shock. Promptly at zero hour the explosive charges in the blind ends of the tunnels were ignited. This made it possible for large numbers of men to advance under cover to within about a hundred feet of the German lines and well in front of the desultory retaliatory barrage of the enemy's field-guns. Machine guns and trench mortars added their respective quotas to the death-dealing storm. Owing to the favourable wind the latter were able to perform valuable service in using gas shells and in placing a heavy smoke screen along the German lines.

The Canadian barrage moved with the smoothness and precision of clock-work. By switching the guns a few degrees after each shot every battery maintained a sweeping fire on its zone; and as each gun was allotted but approximately sixteen yards of front, the barrage constituted a veritable curtain of steel. High-explosive shells threw up columns of earth and débris, row succeeding row. At the same time, sharp, wicked flashes of flame and white puffs of smoke from bursting shrapnel added a further touch to the fury of the scene. The deafening roar of the guns and trench mortars, the chattering of machine guns, the swishing, rushing sound of shells followed by crunching explosions produced a combination of noise that was almost overpowering. In less than three minutes, signals of distress were in evi-

dence all along the enemy's line. His trench lines could be traced for miles by the thousands of flares that were thrown up. These were of every description and colour, from the plain white Roman candle to vari-coloured spirals and sprays and parachute lights. As a pyrotechnic display it was splendidly unique; but it failed to bring the assistance so urgently needed by the German infantry. The enemy's artillery fire was weak and scattered and it was evident that many of his gunners were in a panic. As a background for this cataclysmic scene, the sun rose slowly above the horizon and peered angrily through wild storm clouds. Flurries of snow and sleet whipped the field and at times blotted out the battle scene. Three minutes after zero, the barrage made its first lift and permitted the infantry to close with any of the enemy who still survived the storm of steel.

The several attacking battalions advanced by companies in extended order. The first waves were required to capture but limited objectives. As soon as they had taken these they at once set about reorganizing their units and consolidating their positions. Other companies then "leap-frogged" these positions and proceeded to the next objectives. The reserve battalions provided parties of men to carry forward additional supplies of ammunition. Platoons were detailed from each of the attacking units to "mop up" the enemy dug-outs and underground galleries, so as to forestall any attempts of the enemy to emerge from their hiding-places and strike the advancing troops in the rear. That form of tactics had been followed with some success by the Germans on former occasions; but the opportunities were few indeed for repeating such a success during the attack on Vimy Ridge. The "mopping up" parties carried out their tasks with thoroughness and despatch. The enemy had not had time to place "booby traps" or mines, and the Canadians, with alert assurance, moved through his de-

fences, hunting out any stragglers or groups of men who remained concealed. In the greater number of cases these surrendered readily enough; but not a few of them showed fight, and others behaved treacherously after having surrendered. In such cases as the latter no quarter was given. This work was, therefore, replete with thrilling episodes and demanded no little individual valour and resource. At the same time, these dug-out exploits provided some striking studies in contrasts. In the midst of the stern work of battle, the men took almost boyish pleasure in searching the German quarters for souvenirs. In addition to these, they found numerous documents and maps of military value; and many platoons obtained sufficient high-class German cigars to last them for several days. Unless it was absolutely necessary the dug-outs were not destroyed, but were preserved for occupation by the victorious troops.

Meanwhile the attacking infantry advanced steadily. There was a restrained courage in their movements that was most impressive. They marched forward slowly and in perfect order, carrying their rifles, with fixed bayonets, indifferently at the trail, or slung over their shoulders, until they approached enemy trenches or strongholds. There was nothing in the nature of a wild charge. The barrage, as well as the deep, clinging mud, prevented that, but quietly and imperturbably they strolled in the wake of the barrage over the waste of shell-torn earth.

The German front line had been practically obliterated by the concentrated shell-fire and but little trouble was encountered there. As the advance proceeded, increasing difficulty was met with from enemy machine gunners and snipers. These were obviously picked troops, for in most instances they worked their guns either until they were killed or until their positions were made untenable.

In less than half an hour, groups of German pris-

oners could be seen making their way back to the Arras-Bethune road. They were quite unattended, for no fighting man in the attacking units was allowed to return with prisoners or wounded. The troops in the reserve lines, in accordance with orders, paid little attention to them, but in isolated instances small parties of Canadians pestered them for souvenirs. At the Arras road they were taken in charge by pickets who piloted them to the barbed-wire "cages" in the rear.

About the same time the stream of wounded started to flow back. For the most part these were in a cheerful mood, for the attack was progressing according to schedule nearly everywhere, and, besides, there was the pleasant prospect of getting to "Blighty." One chap, whose spirit was typical of many others, had a foot badly smashed, so he crawled towards the rear on his hands and knees, the mud reaching half-way to his elbows. Some one had lighted a cigarette for him and he grinned with satisfaction as he paddled his way to the nearest dressing station. Stretcher-bearers and a few doctors, assisted in many cases by German prisoners, moved over the newly conquered ground, gathering in the severely wounded, while others gave first aid to "walking cases." The latter, as soon as their wounds were hastily dressed in the trench first aid stations, found their own way back to the hospitals in the rear.

Although the number of killed in the battle was much smaller than had been expected, the number of wounded, especially of "walking wounded," was larger than had been anticipated. Long before evening, the advanced stations and field hospitals were filled with "stretcher cases," and the ambulance service was taxed to the utmost to get the latter evacuated to the stationary hospitals in time to prevent congestion in the forward areas.

As the infantry advanced, the German resistance grew steadily stronger. On the right of the Canadian

Canadian Official Photograph

THE RETURN OF THE VICTORS

Lorry loads of Canadian infantry returning from the taking of Vimy Ridge

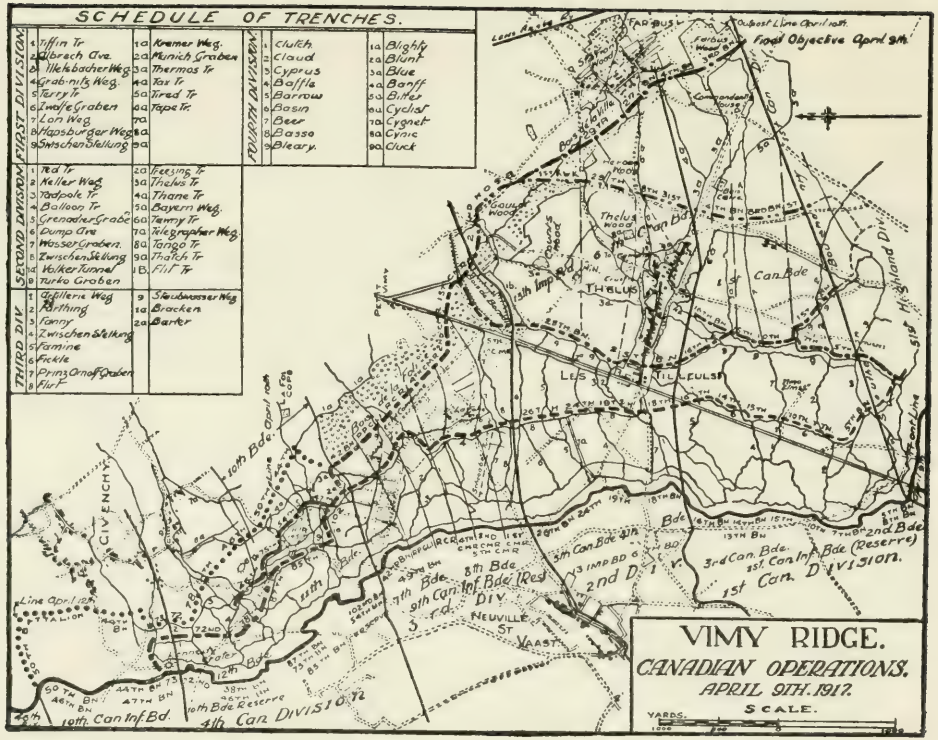
line, where the 2nd and 3rd Brigades were advancing, Bavarian troops fought with great stubbornness. In less than two hours, however, the Canadians had captured their objectives in Swischen Stellung and proceeded to consolidate their positions. Machine guns were then brought forward to repel possible counter-attacks as well as to assist in the advance. Shortly after nine o'clock the 3rd and 4th Battalions passed through this line and proceeded with the attack. The enemy artillery were by this time recovering from their nervousness and their firing was causing much more trouble. Nevertheless, throughout the day the volume of their fire was vastly less than that of the Imperials and Canadians. Before night, the 3rd and 4th Battalions were established on the western side of Farbus Wood, having captured and held all their objectives.

On the northern flank of the 1st Division, battalions of the 4th and 5th Brigades had succeeded in crossing the Arras-Lens road, and established themselves near the outskirts of the village of Thelus. About the same time, units of the 13th (Imperial) Brigade had formed up on their northern flank. Thelus was known to be strongly fortified with machine guns, and the artillery had poured a devastating fire into it. In spite of that, many of the German posts, heavily constructed of concrete, had withstood the storm and promised to give much trouble. Only about twenty minutes, however, were required by men of the 28th Battalion to capture the western end of the village. Thelus trench was captured almost simultaneously by the 29th Battalion, a feat that was announced to Headquarters by a prearranged signal — the shooting of three white Verey lights. In less than an hour the men of these two battalions had swept through the eastern end of the village and established themselves on Hill 135, to the north-east. It was a creditable performance, executed by the men of "the Iron Sixth," with great dash and

with fewer casualties than had been anticipated. Count's Wood and Goulot Wood were captured by Imperial troops, the 2nd King's Own Scottish Borderers and the 1st Royal West Kents, while Thelus Wood and Heroes Wood fell to the lot of the 28th and 29th Battalions.

Nor had the men of the 3rd Division been less successful. The 1st and 4th Canadian Mounted Rifles, the Princess Pats, and the 42nd Battalion were detailed to capture numerous formidable trench systems, including a portion of Swischen, Artillerie Weg, Fickle, Fanny, Staubwasser Weg, and Famine. A series of mine craters extended almost all across their front, but in spite of the heavy mud the enemy was forced from these with but little trouble. The Schwaben tunnel, almost straight in front of the Goodman tunnel, was speedily captured from the Germans, and provided some of the Canadian Mounted Rifles with a safe means of advancing towards the crest of the ridge. The 2nd Canadian Mounted Rifles carried out the attack on La Folie Farm a little to the east of Fickle Trench. Farther north, the Royal Canadian Regiment captured the École Commune. Both of these points had been converted into miniature fortresses by the Germans. By noon the division had practically completed its share of the battle and had commenced to consolidate its position in La Folie Wood.

The 4th Division, which formed the "northern defensive flank" of the Canadian forces, met with sterner resistance. The more broken character of the country gave the defenders a great advantage. Batter Trench, between Bauble and Black, was defended with great tenacity against the assaults of the 11th Brigade. It was not until the afternoon, when reinforcements were brought up from the 46th Battalion, that the enemy was finally ejected and his forces driven back to Beggar Trench near the crest of the ridge. This delay naturally held up the left flank of the 3rd Division and sub-


SCHEDULE OF TRENCHES.
FIRST DIVISION
4 Tiffin Tr
1 Albrech Ave.
6 Ilketabacher Weg
4 Grabenitz Weg.
5 Terry Tr
6 Twelfe Graben
7 Lon Weg
8 Hapsburger Weg
8 Swischen Stellung
1a Kramer Weg.
2a Munich Graben
3a Thermos Tr
4a Tax Tr
5a Tired Tr
6a Tape Tr.
8a
9a
SECOND DIVISION
1 Ted Tr
2 Keller Weg
3 Tadpole Tr
4 Balloon Tr
5 Grenadier Grabe
6 Dump Ave
7 Wasser Graben.
8 Zwischen Stellung
9 Volker Tunnel
9 Turko Graben
2a Treesing Tr
3a Thelus Tr
4a Thane Tr
5a Bayern Weg.
6a Tanny Tr
7a Telegrapher Weg.
8a Tango Tr
9a Thatch Tr
1B Flit Tr
THIRD DIV
1 Artillerie Weg
2 Farthing
3 Fanny
4 Zwischen Stellung
5 Famine
6 Fickle
7 Prinz Arnolf Graben
8 Flirt
9 Stadtwasser Weg
1a Bracken
2a Barker
FOURTH DIVISION
1 Clutch
2 Claud
3 Cyprus
4 Baffle
5 Barrow
6 Basin
7 Beer
8 Basse
9 Bleary.
1a Blighty
2a Blunt
3a Blue
4a Banff
5a Bittes
6a Cyclist
7a Cygnet
8a Cynic
9a Cluck
VIMY RIDGE.
CANADIAN OPERATIONS.
APRIL 9TH. 1917.
SCALE.
YARDS.
Final Objective April 9th
Line April 10th
Line April 11th
Front Line
THELUS
LES TILLEULS
CIVENCHY
NEUVILLE ST VAAST
1st Can Division
2nd Can Division
4th Can DIVISION
10th Can Inf Bd.
10th Bde Reserve
12th Bde
11th Bde
9th Can Inf Bde (Rest Div)
8th Bde
7th Bde
5th Can Bde
3rd Can. Bde.
1st Can Inf Bde (Reserve)
2nd Bde
1st Can Bde
2nd Can Bde
3rd Can Bde
Thelus Can Bde
Commanders Hill
Tadpole Copse
Thelus Wood
Goupil Wood
Pimple
Tadpole Tr
Balloon Tr
Dump Ave
Tiffin Tr
Famine
Fickle
Farthing
Fanny
Zwischen Stellung
Prinz Arnolf Graben
Flirt
Artillerie Weg
Stadtwasser Weg
Bracken
Barker
Tiffin Tr
Albrech Ave.
Ilketabacher Weg
Grabenitz Weg.
Terry Tr
Twelfe Graben
Lon Weg
Hapsburger Weg
Swischen Stellung
Kramer Weg.
Munich Graben
Thermos Tr
Tax Tr
Tired Tr
Tape Tr.
Treesing Tr
Thelus Tr
Thane Tr
Bayern Weg.
Tanny Tr
Telegrapher Weg.
Tango Tr
Thatch Tr
Flit Tr
Clutch
Claud
Cyprus
Baffle
Barrow
Basin
Beer
Basse
Bleary.
Blighty
Blunt
Blue
Banff
Bittes
Cyclist
Cygnet
Cynic
Cluck

jected the latter to a galling enfilade fire. Immediately above Beggar Trench loomed Hill 145, one of the most serious obstacles encountered in the whole operation. Although fighting with the greatest determination, the Canadians were unable to capture this stronghold until nearly nightfall, in spite of the fact that they secured a foothold on its slopes. The Germans, encouraged by this minor success, rushed train loads of troops from Lens and Douai, with a view to counter-attacking in force and outflanking the ground they had lost farther south. Aeroplane patrols performed a valuable service by observing these concentrations and by bombing them so effectively as to completely disperse them. Determined counter-attacks were made by other Bavarian troops, however, but these were finally repulsed with heavy losses. Reinforcements were brought up from the 10th Brigade, which had been held in reserve for a proposed attack on the Pimple the next day, and in the face of a devastating machine-gun fire the Canadians reached the summit. There a short but bloody struggle with bayonets ended in the enemy being forced from the highest point of the historic ridge. It was a dashing action, especially in view of the fact that it was carried out on oral instructions and over ground that was not familiar to many of the assaulting troops. As a result, the German counter-attacks in that region, the only point where they were at all dangerous, were given their quietus. The hill dominated the Pimple and it was a great advantage to have possession of it when the time came to storm the latter. The success also convinced the enemy that his chances for regaining the ridge were distinctly remote and made it imperative for him to retreat to the La Coulotte-Avion-Mericourt line, in order to reach a position more remote from the observation of the Canadians on the escarpment. His retreat to that line on the 12th and 13th followed as a natural result. The remnants of the Bavarian regi-

Canadian Official Photograph

"THE PROMISED LAND"

Canadians on Vimy Ridge viewing the plains about Lens

ments that held that portion of the German line were withdrawn a day or two later to the eastern front to reorganize.

Farther north, the 38th and 72nd Battalions advanced from the neighbourhood of Blue Bull Tunnel to Kennedy Crater. Two mines, one near Gunner's Crater and the other near Kennedy Crater, were sprung at zero, and these craters, together with a series of old craters that extended along the front of the 4th Division, were speedily occupied and consolidated.

An outstanding feat was performed by Captain MacDowell in Baby Trench. Two enemy machine guns were giving serious trouble. With the aid of four men, Captain MacDowell rushed these guns. He then blew up two entrances to a large German dug-out, and, leaving two orderlies at the remaining entrance, he entered it, killed a number of the occupants, and took two officers and seventy-five men prisoner. For this work he was awarded the Victoria Cross.

In exactly fifty-five minutes from the time the attack opened, the 38th had captured all their objectives and had commenced to consolidate the new positions.

The battalion still had some severe fighting to do, however. Owing to the partial failure of the 75th Battalion on their right, the men were exposed to a galling enfilade fire from German machine gunners. With the assistance of companies of the 46th Battalion, the 38th swung their right flank forward and were of material assistance in getting into touch with the 11th Brigade and thus forcing the German gunners back. Meanwhile, companies of the 78th, 72nd, and 73rd Battalions pressed through the objectives won by the 38th and 72nd on the left, and proceeded with the attack. Farther south, the 46th, 50th, and 44th Battalions attacked on the front held by the 75th, 54th, and 47th, carried the attack forward, and, although much heavy fighting prolonged the operation, all the objectives sought for were captured before evening.

At intervals during the forenoon, groups of infantry could be seen silhouetted against the sky-line as they reached the top of the ridge. Then, after a moment's pause to gaze out over the Douai plain, which stretched before them for fifteen miles to the eastward, they disappeared down the farther slope. These were, in most cases, advance bodies sent out as patrols, while the main body of troops were busy digging in on the crest. The eastern side of the Vimy scarp is scored at frequent intervals by small ravines which run at right angles to the ridge. The Germans had burrowed scores of dug-outs in the sides of these ravines and a few small advance parties of Canadians were captured by groups of the enemy, who emerged from these dug-outs and took them in the rear.

By mid-forenoon the artillery barrage had become very much less intense. Sections of many of the field batteries were advanced several hundred yards to positions on the east side of the Arras-Bethune road, where they again went into action to harass the retreating enemy and to prepare the way for attacks on further objectives.

The Canadians did not lose a minute in taking advantage of the wide observation that they obtained from the summit of the ridge. Artillery observation officers and signallers had gone forward with the first wave of the infantry. The signallers laid telephone lines as they advanced, and, the moment they reached the crest, telephones were attached and communication set up with the batteries in the rear. Hostile shell-fire gave the linesmen no end of trouble in order to keep these lines in operation. However, for a few hours these forward observing officers were almost bewildered with the number of targets that demanded their attention. Scattered over the plain below them were scores of concrete gun emplacements. Some of these had already been smashed in, but many were still protecting guns in action. At first the fire of

field-guns was directed on these, but even when direct hits were obtained the shells would ricochet on the concrete coverings and do no damage. It was necessary, therefore, to put the "heavies" at work. The shells from these crushed in one gun emplacement after another, much as if some tremendous weight had borne them down. The infantry were able to get at many of these guns, which they captured and turned on the retreating Germans. This latter move was the fruition of a creditable piece of foresight exercised during the winter months, when many of the Canadians were carefully trained in all the details of German guns and ammunition. As large quantities of ammunition were also captured, these guns proved extremely useful at a time when the mud made it impossible to move guns forward quickly.

In addition to enemy guns, the enemy lines of transportation were laid bare. Throughout the morning, guns had been kept firing on important cross-roads behind the German lines. The result of this was that by the middle of the forenoon traffic of all kinds was lined up on the roads waiting for the Canadian artillery to cease firing. All that was necessary for the observation officers to do was to direct their gun-fire up and down in the masses of traffic. Within a quarter of an hour some of these roads were shambles.

During the morning a squadron of Canadian Light Horse and a company of the Canadian Cyclist Battalion took up positions at points along the Arras-Bethune road and remained ready to move at an hour's notice. Both of these units were of great value.

As the morning wore on, the low-hanging clouds began to lift and break up. Although a few aeroplanes had been up earlier in the morning, the weather conditions had largely nullified their services. But with clearer weather, "contact patrols" were exceedingly helpful to the infantry in spotting the location of

enemy strongholds. Then, too, by watching and reporting on enemy movements, particularly the massing of troops, they made it possible for the artillery to break up heavy counter-attacks before they could do any damage. Notable work of this nature was done in the neighbourhood of Vimy village, and also towards the northern end of the ridge, where the 4th Division was meeting with serious resistance.

German aircraft were not much in evidence. One German plane was brought down by machine-gun fire and crashed behind Vimy village. But their "Archies" worked hard to bring down the British planes. Black puffs of smoke appeared on all sides of the latter, indicating the bursts of German shrapnel. Skilful manœuvring and good fortune were both necessary to pilot aeroplanes out of such "sky-punching" barrages. Shortly after noon one of our balloons broke loose and drifted high towards the south-east. Our anti-aircraft worked frantically to bring it down, but without success, and it passed into enemy territory.

Early in the afternoon complete success was assured. The Imperial forces and the first three Canadian divisions had mastered their objectives practically according to plan.

The whole strength of the attacking forces commenced to move forward. No longer was it necessary to wait for darkness in order to make an extensive movement in front of the ridge. Within a few brief hours the tables had been completely turned, in so far as observation from the ridge was concerned. It was first of all necessary to maintain communication with the advancing infantry and dozens of telephone lines were carried forward on to the ridge to newly established forward headquarters on the crest and even on the eastern slope. The headquarters staffs were busily engaged in the transference forward of their office materials. At intervals, there were pauses in these pro-

THE CANADIAN CORDUROY ROAD TO VICTORY

VICTORY'S HIGHWAY: LAYING THE ROAD OF PURSUIT OVER VIMY RIDGE

Canadian Official Photographs

ceedings when important prisoners were brought in to be questioned. One young German subaltern, while awaiting his turn with the questioners, was given an "unofficial" cross-examination by a signaller who spoke German. He was asked if the Germans knew that the United States had entered the war on the side of the *entente* Allies. His reply proved that the higher German officers were playing on the credulity of their men, for he stated that they knew that the United States had declared war, but it was as an ally of Germany. Attempts were made to convince him of his error, but he remained skeptical.

Many additional field batteries were moved forward. The positions which they left were in some cases taken over by the "heavies," but several of the latter moved still farther forward to positions on the Arras-Bethune road. Small groups of tents appeared at intervals along this road, the forerunners of thousands of others that were set up within the week following, for already even the horse lines, rear billeting areas, and supply dumps of all kinds were being pushed forward. Trains of motor lorries engaged in transferring ammunition dumps were also at work. Railway construction battalions commenced the extension of the narrow-gauge railways, and, what was of more importance, work was proceeded with on a standard-gauge line which was to extend over the ridge to the right of Neuville-St. Vaast. All of the back areas were undergoing tremendous changes, and the road between Arras and Bethune and the roads leading into it were rapidly filling with traffic.

During the evening of the 9th the clearer weather that had prevailed throughout the afternoon again turned cold and stormy. It proved to be a rather prolonged break, for, until the 20th of the month, the weather steadily favoured the retreating Germans. The heaviest snow-falls of the whole winter occurred on the 10th, 11th, and 12th. These were interspersed

with storms of rain, and the combination turned the whole battle area, particularly those portions that had been under heavy shell-fire, into a hopeless quagmire. The transport services, especially those dependent upon horses and mules, suffered heavily, for the animals gave out under the trying conditions and many of them had to be destroyed. To move the field-guns, and much more those of heavy calibre, over such a wilderness of deep, greasy mud, seemed humanly impossible. Nevertheless, small armies of men were put to work to construct makeshift roads across the ridge. Shell holes were filled in, after which fascines, planks, and slabs were laid down. Within a few days, several hundred yards of roadways were constructed in this manner across what had been No Man's Land, the German trench system, and on over the ridge. Shell holes in existing roads were filled in with stone or rubble from the nearest ruins. These roads over the crest could only be used by transport at night, as portions of them could be seen by the enemy. No sooner were they laid, however, than artillery, pack-mules with ammunition and provisions for the infantry, and wagons with supplies surged feverishly forward every night. The fascines were long enough to allow for a double line of traffic if the drivers of vehicles were skilful. But if, as sometimes happened in passing a returning vehicle, one side of a gun or of a wagon went over the ends of the fascines and sank in the mud, traffic was likely to be tied up for several hours. It required a week of the hardest and most nerve-racking work to get the guns over the ridge and in positions on the edge of the Douai plain.

Meanwhile, a situation fraught with no little danger had been developing. The infantry of necessity had to keep in touch with the retreating enemy, and in doing this they gradually passed beyond the range and the protection of the field artillery. Moreover, they had had but little time to consolidate their new

Canadian Official Photograph

THE PAGEANT OF DEFEAT

Some of the Germans captured by the Canadians at Vimy Ridge

lines. Fortunately, the enemy was in a near panic and did not attempt anything in the way of a general counter-thrust. Had he done so, he might have inflicted very serious losses.

Shortly before four o'clock on the morning of the 12th of April, a series of explosions occurred behind the enemy's lines in the direction of Givenchy-en-Gohelle. Patrols were at once sent out by the 38th and 72nd Battalions and entered Givenchy unopposed. During the morning these patrols pushed forward on either side of the town and shortly after noon reached the Vimy-Angres line, which was at once consolidated.

At five o'clock units of the 4th Division set out in the face of a wild snow-storm to capture the Pimple. The 44th and 50th Battalions, with the 46th and 47th in reserve, carried out the attack, and in spite of the muddy ground succeeded in reaching the summit. There the Germans were found in considerable force, but they were dislodged after a sharp, hand-to-hand struggle with the bayonet. Across the Souchez, Imperial troops of the 46th Division captured the wooded hillock known as the Bois-en-Hache, and the whole defensive system of the enemy in that region collapsed. With the capture of the Pimple and the Bois-en-Hache by the Canadians and Imperials, in the north, and the village of Monchy by the Imperials, in the south, the completion of the first stage of the battle of Arras was reached. Before the advance could continue further, the artillery had to be moved into positions beyond the ridge.

The Canadians had taken over four thousand prisoners, or, roughly, about one-third of the total number captured in the advance up till that time. They had also captured thirty guns, scores of machine guns and trench mortars, and great quantities of war material. The three Imperial Corps, including certain South African units attached to them, had penetrated the enemy position for more than four miles. Their

advance had been made over comparatively featureless country, but it was heavily fortified with redoubts and wire defences. These they overcame with great skill and courage, ably assisted by the artillery and squadrons of tanks. The Canadians, on the other hand, moved forward over extremely difficult country, and consequently their attack did not reach as great a depth as did that of the British. Their deepest thrust, a distance of between two and three miles, had been made in the vicinity of Farbus. The form of the whole twelve-mile advance might be likened to the swinging forward of a radius through an arc of its circle. At the northern, pivotal point, near Givenchy, was the 4th Division of the Canadian Corps, while at the end nearest the circumference, south of Arras, was the Seventh Imperial Corps.

The success of the Canadian 4th Division on the 12th of April enabled them to threaten Lens. There were evidences that the Germans were panic-stricken and seriously contemplated abandoning the city. Liévin, a suburb to the north-west, and Avion were blown up by them, and on the 12th of April the civilian population were forced to evacuate the city. At that time it had not been badly smashed by artillery, and some of the coal mines were still in operation, in spite of the fact that it had been the main objective sought for in the battle of Loos nearly two years before. If the Canadians and British had been able to force its evacuation immediately after Vimy, the gain would have been of great moral and strategical value. But the weather conditions slowed up the advance to such an extent that the enemy had ample opportunities to readjust his defences and turn the city, with its numerous suburbs, into a vast machine-gun fortress.

In his Orders of the Day for April 12th, 1917, Sir Douglas Haig expressed his satisfaction at the untiring and efficient manner in which every branch of the Service in the attacking forces had carried out its

BUILDING A LIGHT RAILWAY OVER VIMY RIDGE

MUNITIONS BY MOTOR

The first train over the track of the Vimy Ridge light railway

Canadian Official Photographs

work. The part played by the Canadians received high commendation, and the heavy, siege, and field artillery, the Royal Engineers, the Royal Flying Corps, the Cavalry Corps, and the Corps Mounted Troops also received special mention.

On the 13th and 14th of April, Canadian infantry patrols followed up the retreating enemy. Cavalry patrols were also requisitioned, and they, too, did excellent service. Small local encounters occurred and numerous villages, such as Liévin, Vimy, Petit Vimy, and Bailleul, were occupied with but little fighting. The Germans destroyed much property as they fell back, particularly in the direction of Lens. They also fouled, or poisoned, most of the wells, and set innumerable "booby traps"—a peculiarly Hunnish form of amusement. As he fell back, the enemy left behind a number of wounded Imperial and Canadian prisoners that he had taken. In one dug-out which he abandoned were found eight wounded Canadians on stretchers, with food, water, and lighted candles by them, an instance of humane treatment of prisoners by the Germans that was none too common.

Although unable to follow up their advantage quickly, the Canadians utilized every moment of their time in erecting strong defences on the newly won ground. Hundreds of men were kept at work with picks and shovels constructing trench systems, redoubts, and machine-gun posts. Wiring parties were also kept busy erecting entanglements. Had the enemy attempted a counter-attack on a large scale, before the artillery had been able to get into new positions beyond the ridge, these defences would have been of the greatest service. But no such thrust was attempted, in spite of the fact that several new German divisions appeared on the front.

On the 16th of April, a week after the commencement of the attack on Vimy Ridge, the French opened their great offensive on the Aisne. It had been planned

to follow the British attack at Arras, in the hope that the enemy would make heavy concentrations of his troops on the British front and thus weaken his line on the French front. The French attack was not so successful as had been hoped, and it became urgently necessary for the British to press forward towards Douai and Cambrai, in order further to distract the enemy. An attack on a nine-mile front north-east of Arras was planned to take place on the 21st of April. High winds and rainy, cloudy weather in the interval made the work of the artillery and the Air Service very difficult, so that it was necessary to postpone the attack until the morning of the 23rd. During the interval the enemy worked feverishly to complete his Drocourt-Quéant line of defences. At the same time his guns poured thousands of gas shells, as well as shrapnel and high-explosives, into the Canadian lines and the roads below the ridge. The railway embankment between Farbus and Avion was used as a shield for many Canadian guns, and for the first three weeks that they held these positions they were constantly subjected to a most galling hostile fire. Besides, the Canadian lines of communication were kept under fire, so that it was exceedingly difficult to move forward ammunition and supplies for the infantry. Because of the poisoned wells many units were short of water and were forced to use water taken from open shell holes. Others, exposed in outposts, could not even get that, so that the men were sometimes nearly dead from thirst.

At dawn on the morning of the 23rd of April, the British opened their attack. It was carried out by the 4th (Imperial) Division, only one platoon of Canadians being engaged. Although the attack was preceded by strong artillery preparation, it was a failure. The left flank of the attacking troops met with a stiff resistance from enemy machine guns stationed in houses and in the electric station, and it was necessary for the infantry to withdraw.

Canadian Official Photograph

A CANADIAN STRETCHER-BEARER AND GERMAN PRISONER MINISTERING TO A WOUNDED MAN AT THE CAPTURE OF ARLEUX

After the 20th of April, the weather definitely changed, becoming warm and sunshiny. The ground dried up rapidly. Even the shell holes, many of which had been filled with red or green water, were soon empty. Such trees as were left on the slopes and in the old gardens and orchards of Vimy did not put forth any leaves, for they had been destroyed either by gas or shell-fire, or by vandal hands as the enemy retreated. The withering tide of battle had transformed yet another fertile, busy region into a ghastly desert.

As the French were still unsuccessful on the Aisne, the British planned further attacks in the Arras region. The last of these was made from the 28th of April to the 3rd of May. The opening phase of the battle was carried out on an eight-mile front by troops of the 2nd Canadian Division, assisted by Imperial troops. Feint attacks were made on either flank with a view to puzzling the enemy and attracting as many as possible of his reserves from the French front. The first attack began at 4.25 on the morning of the 28th of April, and lasted during the most of the succeeding two days. Canadian troops fought their way with the most determined valour into the village of Arleux. They were particularly efficient in cleaning out the underground passages which extended between Arleux and Fresnoy, and in bitter hand-to-hand conflict forced the enemy out. The Germans counter-attacked again and again, but with one exception the artillery smashed these up. In this action the Canadians made an advance on a front of 2,500 yards, penetrating to a maximum depth of 1,800 yards. Nearly four hundred prisoners were taken. Five days later, at daybreak on the 3rd of May, the attack was continued on a much extended front, Imperial and Australian troops attacking farther south. In this struggle the Canadians captured the village of Fresnoy, a bare nine miles from Douai, with only the Drocourt-Quéant line to bar the way. They found the town filled with enemy

troops of the 15th Reserve Division assembled to attack at a later hour of the same morning. Nevertheless they captured the position and held it firmly against all counter-attacks.

Important as the capture of Vimy Ridge undoubtedly was, it is perhaps as well for Canadians to realize that it was only one of a series of actions designed to dispossess the Germans of a number of outstanding positions, which, by skilful generalship, they had secured early in the war. The action was a step — a very valuable step — in the policy of attrition, which the Somme battles seemed to prove was the wisest method at that time.

It is quite certain that Sir Douglas Haig would have transferred his activities to Flanders immediately after the enemy had been driven beyond the ridge, had not the French commander, General Nivelle, requested him to press forward in the Arras salient, while the French attacked on the Aisne. As a consequence, the battles of April 23rd and of April 28th to May 3rd, in front of Arras, were largely demonstrations to distract the attention of the Germans from the French attack at the Chemin-des-Dames. The moment that the French gained their objectives, British activities were transferred to Flanders, and preparations were hurried forward for the attack on Messines Ridge.

It may seem unfortunate now that a deeper thrust was not planned to take advantage at once of the advance made on the 9th of April. There is reason for believing that if provision could have been made for getting the guns over the ridge in a day, instead of the week that it actually required, the whole Douai plain, with the important centres of Lens and Douai, could have been captured. But it is easy to be wise after the event, and few, if any, realized beforehand how great would be the panic and disorganization that would occur in the German forces immediately after they had been driven beyond the Vimy Ridge.

WHAT THE GERMANS DID TO VRAIGNES
No shell fell here; completely wrecked by the retreating foe

THE VILLAGE OF FARBUS
This ruined village was the farthest point to which the Canadians penetrated at the capture of Vimy Ridge
Canadian Official Photographs

CHAPTER IV

THE SIEGE OF LENS

1. The Defences of Lens

A VIEW of Lens from a forward observation post on an early morning in May, 1917, gave a staggering impression of the horrible devastating power of modern war. In 1914, when France was invaded by the ruthless enemy, Lens stood a centre of teeming activity. It is situated in the Department of Pas-de-Calais, in Northern France, on the river Deule and the Lens canal, thirteen kilometers N.N.E. of Arras, right in the heart of the coaling region of France, with its mines night and day bringing to light the hidden wealth of the nation, its iron and steel industries ceaselessly toiling to keep pace with the demand for its products. A pleasing sight, from the vantage ground of Vimy Ridge, with its tiny suburbs clearly defined: St. Laurent on the north, St. Antoine on the south, and St. Pierre to the west. Here lived the workingmen of all the industries of Lens. Modest cottages stood in undeviating rows, street after street. From a distance they looked like picture-block houses forming the little towns, with a brilliant background, the natural foliage and verdure of sunny France.

At the time our story opens the weather was superb, and the light-hearted Canadians had already forgotten the trying winter and spring, the weary months of sleet and rain and marches and fighting over territory that traffic and shell-fire had turned into a vast field of mud,—not mud as it is known in the average experience; but a vile-smelling substance that is lived

with, becomes steeped into one's very being, until it is felt mentally as well as physically. Bad as it had been during the winter and spring, however, it was nothing compared to the mud of Flanders. Here, by reason of the chalky nature of the soil, the ground soon dries and in a surprisingly short time affords a decent footing.

The soldier, too, suffers less hardship in his tour of duty at this time of year, for "stand to" is getting later each day, and "stand down" is getting earlier. Therefore as the days lengthen and the nights shorten, the strain of sentry and patrol duties is diminished.

During a lull in the shelling, it was possible to get a glimpse of shell-battered Lens, a heap of ruins, with its trench system zigzagging north and south, east and west. The enemy had gained valuable experience when the British attacked this sector in September, 1915. He recognized the importance of the rising ground to the north, at Hill 70, and his trench system was laid out to make his position invulnerable. His front line was most suggestive of permanency, built wedge-shape to minimize the effects of artillery fire, with dug-outs deep and large, and well fed by communication trenches from the support lines. Following the contours of the ground, to offset observation, it extended from Hill 70 past Loos, immediately in front of Lens, and connected with his new line to the south of the town. Machine-gun emplacements abounded, trussed concrete pill-boxes that would actually stand direct hits of 5.9-inch shells. The writer saw one in Nestor Trench, after the advance at Hill 70, that was only cracked open on one side. Artillery observing officers stated that a good many direct hits were seen to be made on this very emplacement from even 12-inch guns. Any one who has seen the havoc created by shells from such a weapon can appreciate the strength of the pill-box that resisted its blows. These pill-boxes, manned by machine gunners, ac-

knowledged the most efficient troops in the German army, afforded the enemy a powerful means of resisting attack.

Everywhere, too, in this sector the enemy's wire entanglements were amazingly complete, and particularly so in front and north of Lens. Four belts of wire protected his front, some of it a quarter of an inch thick—heavy enough to defy any but the most powerful wire-cutters. Then there were aprons of wire, low to the centre of No Man's Land, and intermingled with trip wire, and getting higher as they neared his parapet. Each apron was from eight to ten feet wide. With machine guns, cleverly concealed, playing their deadly fire into each and every part of the wire, it could hold up any attack made by infantry. Before an advance could be made, these belts of wire had to be destroyed; and only the artillery could do that. The object was to do it in such a way as to deceive the enemy as to the point about to be attacked, thus keeping him from maturing a defensive that would militate against the infantry when they went over the top. The British had never laid such stress on wire defences as had their foe. The writer during the advance at Zillebeke in 1916, in connecting up with the Guards Division, commented on the lack of wire. The answer received was most expressive and at the same time suggestive of the Allied successes of 1917–18. "To Hell with the wire; it keeps the Huns off. We only wish they would come."

The heaps of ruins here and there, in Lens itself and in its little suburbs, proved to be strong points. Cottages that to the eye seemed demolished were in reality pill-boxes. In the heart of the ruins were concrete structures that seemed invulnerable to shell-fire. In these, in comparative safety, two men with a machine gun could hold up an advance.

At this time a gradual increase in shelling was noticed, especially from guns of large calibre. Our back

area was searched by a long-range gun, whose effects, had it been operated with greater judgment, would have been ghastly. A single shell would come screaming over, but from experience we knew, with a fair degree of accuracy, its destination. In but few cases did these monster shells do serious damage; but the appalling explosions, the size of the craters they made, and the effects on an occasional building they struck, all told the terrible nature of the weapon that hurled them against our line. This increased shell-fire spoke volumes to our Intelligence Department. The enemy was moving artillery into the sector for one of two purposes,—he either feared an advance on our part, and was preparing to hold it up, or he was making ready for a counter-thrust on Vimy Ridge. From the manner in which he continued to register on all our trenches and the way his planes flew high and low, photographing, observing, and raiding, the latter seemed to be his intention.

Just at this time, when the 26th Battalion, to which the writer belonged, was in Brigade Reserve at Aux Ritz Corners, near Neuville-St. Vaast, and billeted in tents, a German airman, with an annoying sense of humour, used to bomb us every afternoon. An amusing thing about it was the way our Tommies would rush into their canvas tents for shelter when they heard a two-hundred-pound bomb rushing down through the air with the noise of a steam engine. I recall one of our officers holding a magazine over his head for protection, but not going to the tent, however. On one occasion our commanding officer, Lieut.-Colonel McKenzie, and myself both reached for the same steel helmet and tried to get under it. All this was instinctive, but most ineffective.

After the capture of Fresnoy there had been a lull in the fighting, but on May 8th the Germans made a desperate attack on the position. The Canadians stood in the salient they had created and held for the past

COLLECTING THE VIMY WOUNDED

RED CROSS TRAIN AT CLEARING STATION

Canadian Official Photographs

week, and which the enemy knew was endangering Douai. After heavy preparation, in which gas shells were freely used, he attacked to the north-east of the village, but was driven off, only to renew the attack with increased reinforcements. The Canadians put up a magnificent resistance; but the odds against them were so overwhelming that they were forced to retire from the position, and that evening saw them back in the original line. The most regrettable feature of this day was the loss of two hundred men, who were forced to surrender at the time of the final assault of the enemy.

On the night of June 2nd–3rd, in bright moonlight, the Canadians from their trenches near Bois de Riaumont went over the top in the direction of La Coulotte, with the brewery and the electric power station as their objectives. They caught the garrison, the Bavarians of the 56th Division, napping and trapped them in their dug-outs and tunnels, taking over one hundred prisoners. But in the streets of La Coulotte and around the power station there were many machine-gun nests, and from these a fierce fire was maintained against the attacking force. Despite heavy casualties, by half-past three in the morning the objectives were reached. When dawn broke, the enemy made a counter-attack on La Coulotte. Previous to this attack the German gunners poured a deluge of high-explosive shells into the ruins of the power station and the brewery. The line held by the Canadians became untenable, and after beating off many counter-attacks they were compelled to withdraw to their original lines.

On June 6th another important action took place. The night before, a British Columbia regiment attacked the central power station of Lens, which was so strongly fortified as to make it the most important defence of the town, and succeeded in driving out its garrison. When it was incorporated into the Cana-

dian line it was a sorry mess of smashed bricks, twisted steel girders, and débris of railway cars which had been blown into the ruins of the power station from an adjacent siding by high-explosive shells.

On June 8th, and again on the 19th, the Canadians materially aided Imperial brigades in taking and consolidating some enemy ground. Slowly but surely the British forces were closing in on Lens, which all the while was under a concentrated artillery fire of high-explosive and gas shells. The Germans made a valiant stand at Hill 65, but on June 25th the South Staffords and the Canadians forced them to retire from this strongly fortified position. Two days later the 4th Division had reached the village of Eleu dit Leauvette, on the Lens-Arras road, paving the way for an important success on the following day.

On June 28th, in conjunction with Imperials, the 4th Division made a sweep forward to the village of Avion, the southern suburb of Lens, gaining much important ground, inflicting heavy casualties on the Germans, and sending back over one hundred prisoners. The opposing force, the 11th Reserve Division, fought valiantly. Some, it is true, fled wildly at the commencement of the attack, a few surrendered early in the action, but many faced the advancing forces in the open and fought with them hand to hand with bayonet and bomb. Many, although they knew they were beaten, refused to surrender and retreated to their dug-outs, where they were promptly bombed. This was one of the most spectacular fights in the war. A torrential rain storm made the country a huge swamp in and about Avion. In addition, the Germans had flooded the country, and the ground over which the advance had to be made was a sticky, slippery mess. The men were drenched to the skin, but fortunately for them the rain beat in the face of the enemy. As a preliminary to this attack the Cana-

dians, for the first time in their war experience, used flame projectors, — another Hun-devised weapon, — pouring the blazing contents of two hundred drums of oil into a section of the enemy's front. Nothing daunted by the weather conditions, the men of the gallant 4th Division went over the top. Rolling thunder accompanied the roar of the guns and great streaks of lightning flashed across the sky. Into the streets of Avion the Canadians swept. As they went forward, parties were detailed to search the ruined houses for machine-gun nests and to hunt for fugitives in the cellars and tunnels where they had taken refuge. There was much street fighting, but as usual the Canadians had the better of this kind of warfare, and the place was soon free of the enemy. At their right stood Fosse 4, "a huddle of pit-heads." From this point a steady stream of machine-gun bullets rained on the victors. To attempt to rush it would have been folly, and for the time being it was left in enemy hands, while the Canadians consolidated the new line through the slums of the shell-battered town. On this day the Imperials and Canadians combined had advanced between Souchez river and Oppy on a front of well over a mile and to a depth of five hundred yards.

July 1st, the natal day of the Dominion of Canada, was celebrated with sports and games in the Canadian Corps area. But all was not play. To commemorate this day a special shoot was arranged, and about noon the artillery let loose all their guns and howitzers in a terrific salvo over the German trenches. The enemy evidently thought that an attack in force was meditated and replied with a vigorous bombardment, throwing an enormous number of shells into the Canadian front trenches and back areas.

On July 2nd the 46th (Imperial) Division handed over their line to the 2nd Division, and several days later the 1st Division released the 6th (Imperial) Divi-

sion. The siege of Lens was now almost entirely in charge of the Canadians. Three divisions — one on the north, one on the west, and one on the south — were working their way towards the town's inner defences, which, however, as we shall see, could not be taken during this year without a tremendous loss of life on the part of the attackers. The price of the capture of Lens was too great, and the German garrison, in their gas-infested dug-outs and tunnels, were allowed to keep possession until the following year. But all about them the battle went on without interruption. The persistency of the Canadian attacks wore down their *moral* and depleted their divisions, causing heavy drafts to be made on the German reserves.

2. Discipline and Organization

Discipline was now showing its effect on the corps. Canadians, generally speaking, had not at first fully appreciated the exact meaning of the term or its importance. A soldier, during preliminary training in Canada or in England, might apparently have been a correct specimen to rough it with the enemy on any battlefield, and he resented it if he were not sent out as soon as others. His defect might be inability to keep in time, failure to work in unison with the rest of his section or platoon; or he might fail to see the necessity of saluting punctiliously. "What good is that in France?" he says. Again, he might lack promptness, and so on. Here discipline steps in. Rigid obedience is insisted on, even to the polishing of buttons and daily shaving, until all men in a unit are taught singleness of purpose, unison of action, because when an attack is launched, and that is the culminating point of all training, success depends largely on discipline. Supervision, in a great measure, ends at this time, and only individual initiative, the product

Canadian Official Photograph

DOMINION DAY AT THE FRONT
Memorial service in the field, while planes watch overhead

of discipline, will enable the men to go to the task allotted retaining their organization.

Canadians know now that even their famous impetuosity was a lack of discipline. To be assigned an objective, gain it, and then push on, bayoneting Germans and taking prisoners might be admirable on the face of it; but when it is realized that flanks are left exposed on account of it, and that artillery headquarters may not be advised, with the result that the guns may shell their own troops, it must be considered a lack of discipline.

It is said that the Duke of Wellington would punish a soldier as quickly for overdoing his duty as for underdoing it. It may have cramped initiative of a kind, but it gave him the result he wanted in his men,—exact knowledge. Nowhere on the western front could be seen cleaner, snappier soldiers than in the Canadian Corps area, and they carried their training right over the top. In the lull between battles the strictest discipline was enforced, and in the period that intervened between the fighting at Fresnoy and that on Hill 70 training continued and the most rigid discipline was maintained in the corps.

Meanwhile the tension increased along the front. Patrol encounters were frequent, showing that each side was feeling out the other and endeavouring to learn the disposition of troops and the garrisoning of the line. Beginning at dusk, the machine guns opened up with their sweeping fire, and intermittently kept it up all night; the artillery, ever increasing its volume, shelled both forward and back areas. The casualties mounted up, but the enemy's must have been much worse, for our artillery literally poured shells of all sizes into his back area, paying special attention to the roads he used for transport and his communication trenches. During the period under consideration the Germans displayed an amazing consistency in their operations. They kept to the same paths and roads

and shelled the same trenches at the same time each day, and indeed did everything as though governed by a schedule. As a result of this propensity, it was easy for us to create havoc in their ranks while they were carrying out reliefs or bringing up reinforcements. Their artillery behaved in a most considerate manner. It was sufficient for our infantry to dig a dummy trench about two feet deep and show a tiny column of smoke from it at dawn to have it shelled daily, for weeks or months even; and the enemy could be relied upon to commence sending their shells over to the dummy trench about the same hour each day, while they altogether overlooked a support line perhaps less than a hundred yards away.

In spite of this consideration on the part of the Germans, casualties were rapidly mounting. Since the Battle of Vimy Ridge twelve thousand had been reported. The strain on the Canadian Corps was great, and there was a desire, an impatience, to get on with a show to relieve this tension that was sapping the strength of the men while getting them nowhere. Raids were carried out, local assaults were made. They had their effect, keeping the enemy "jumpy" and establishing identification, but the tension only increased.

The methods adopted by the infantry at this time, and indeed through the entire war, should be found of interest. When a battalion was about to be warned for duty in the trenches, a brigade runner was sent to Battalion Headquarters with despatches. The gist of the order for the battalion read that the —th Battalion would relieve the —th Battalion in the front line on the following night. In a few minutes a copy of this order was received and signed for by each company — A, B, C, and D. Copies went also to the quartermaster and to the transport officer; for ration arrangements must be considered. The medical officer was also advised; for he must make provision for his

department. The order stated that all companies would parade at dusk, or at a time decided upon by the commanding officer, in heavy marching order. A parade state accounting for every man was turned in prior to this time. This is termed a "marching-out state." A record is thus established of just who went into the line. A full day's rations were carried by each man; his ammunition had to be inspected, and the full amount checked. Each rifle was inspected, each gas helmet examined, foot examination carried out, and water-bottles filled. Platoons fell in a full half hour before the time stated in battalion orders, and were checked on all these points by their platoon officers. At the proper hour all companies were turned over after being pronounced "correct" by company commanders. Without a sound the companies moved off at intervals of from three to five feet, and were timed to reach the trenches they were to occupy at a fixed hour.

Before their arrival, however, a small advance party had reached the trenches and taken over trench stores, such as ammunition, bombs, shovels, picks, and wire. They also made note of any special information which the garrison being relieved might have to pass on. This party was usually composed of the second-in-command of the company and three or four reliable men, — non-commissioned officers if available. As the battalion advanced, platoon formation was maintained, but if shelling was encountered the platoons quickly detached themselves into sections. Nothing must stop them. It is a soldier's senior duty and a point of honour to give a quick and complete relief to those who have been bearing the burden of the day. They have earned their relief, and no one is more eager and ready to recognize this than the faithful fellows who are going in.

When the line was reached, the incoming company commander reported to Company Headquarters and

the policy of garrisoning was quickly discussed, information given regarding danger points, disposition of the enemy, methods of warfare, etc. During relief, patrols covered the entire front to prevent any possibility of surprise. This provided a feeling of security and greatly facilitated the relief. Listening posts were taken over, Lewis guns changed, sentry reliefs arranged, and each platoon reported all complete. The trench was then signed for, and from that moment the incoming unit was responsible for holding it against attack, for its upkeep generally and the sanitation arrangements.

During the night sentries were posted in pairs, on the principle that four eyes are better than two, and, with the added confidence that companionship gives, a saner and more authentic impression was gained of No Man's Land. No Man's Land by night! Out there fancy can play the weirdest tricks. An iron stake, a tree trunk can perform the most grotesque antics. A cluster of small shrubs suddenly becomes to the eye of an excited imagination a creeping body of men. You see them plainly; you hear them even. You blink, and they disappear. With a hiss, a star shell shoots upward in its crescent course and floats slowly towards the Canadian line, throwing the ground into dazzling relief, and then, for an instant, darkness denser than ever. This all adds to the strain, and makes uncertainty the greater. The silent sentry does a great work for his King and country. He is only a private soldier, a number; but in that tiny stretch of No Man's Land he is the eyes of the British Empire, and on him rests the responsibility of guarding against the creeping enemy. But experience gives him confidence, and there is not a mark on that stretch of waste that he does not know and cannot vouch for. The pairs of sentries are relieved one at a time, thus enabling the incoming sentry to get a full knowledge of conditions along the front for which he is responsible.

MACHINE GUNS CAPTURED ON VIMY RIDGE

PRINCE ARTHUR OF CONNAUGHT AND GENERAL BYNG
EXAMINING A CAPTURED TRENCH MORTAR

Canadian Official Photographs

When the trench was taken over, communication with the flanks was established, in order that the exact nature of the defence to the left and right might be known. This was important; for there must be co-operation in the event of the enemy, by sudden raid, effecting a lodgment in the line. He must be thrown out. It is an axiom of our trench warfare that the front line must be held at all costs. It is the strict duty of the garrison on the flanks of the occupied line, and the immediate supports in the rear, to dislodge the enemy immediately. There is no waiting for instructions. The job must be done before the enemy can consolidate his position.

All units holding the line and in support and reserve must prepare their scheme of defence and their plan of action in the event of attack and send it for approval to Brigade Headquarters. Each lieutenant commanding a platoon sent his prepared scheme to Company Headquarters. The company commander approved these and made his own plan for the approval of Battalion Headquarters, where the proposed action was examined, approved, and forwarded to Brigade Headquarters. Not a contingency, therefore, could arise without Headquarters knowing exactly the means to be employed in a counter-stroke against the enemy. This system of procedure gave confidence to those in the line and permitted the effective handling of reserves.

A usual disposition of a battalion in the Vimy area was two companies in the line,—one in support and one in reserve. While in the line, every man "stands to" at dusk, with the exception of snipers, who necessarily work in the daylight, and day sentries, who cover the front by means of periscopes, and perhaps one officer for day duty. There are numerous duties that must be performed by night—new wire placed, broken wire repaired, patrols sent to advance posts, rations carried from battalion dump perhaps one or two miles in the

rear, where they are left by the battalion transport, and the inevitable sentry-go.

One of the most trying of trench duties was patrol work in No Man's Land. This was usually done by the battalion scouts, specially trained in the work. Their task was reconnaissance and the thwarting of any enemy patrols they might encounter. Their ability to move silently through rustling grass, wire, or other obstacles, to avoid stronger patrols, to escape sudden bursts of machine-gun fire, was reduced to a science. Constant training enabled them to keep their formation in the dark, and many of them had developed, to an extraordinary degree, sight for night work. The use of too large a number was discouraged, for mobility was of vast importance. After nightfall the scouts silently slipped out, in a fan-shaped formation, the officer the pivot and either flank well forward. If the direction was altered, the whole swung round, the outer flank instinctively increasing speed and the inner one decreasing. These flanks or feelers, as they may be termed, could silently and quickly turn inwards, and envelop enemies almost before they were aware of their presence. A question may arise,—do patrols not cause uncertainty among their own sentries on duty at the parapet? Patrols were always timed. Sentries on the immediate front were warned, as were the flanks, and they knew exactly what to look for. Passwords were used, and swift was the fate of any who hesitated to answer when challenged. A sentry therefore knew if a patrol was due. He saw movement, or the listening post observed it. A challenge, uttered in subdued tones, followed, and the reply had to be prompt, for a bomb or a rifle shot would be the next message, and that without delay.

About midnight the ration party came in from the rear, carrying the company rations for the next day. If it happened to bring up any letters from home, there was great joy and much expectation as to who

might be the lucky ones. While reading these letters, many a man, who a moment before had been cursing his lot, has been heard to say: "Well, the trenches are not such a rotten place, after all."

When a tour of duty of two or three days, largely depending on weather conditions, had been performed, word was received from Battalion Headquarters that the two companies in the line would be relieved by those in support and reserve, and positions would be exchanged. The same procedure with an inter-battalion relief, as this is called, was observed as when an entirely new or strange unit was relieved.

The change was welcome: it relieved the strain on those going back to support. Now the chief task was to be prepared to dislodge the enemy if he gained a footing on the frontage for which they furnished the support. It must not be supposed that the situation was relaxed in the support area; but the mere fact that direct contact with the enemy was shifted to those in the front line made for a different attitude. The shelling was just as bad, and often the calibres of the shells were larger. Troops in support are more or less assembled, and the crumping in of a dug-out almost inevitably caused greater casualties than if the shell found its billet in a front trench. But this was the normal state of affairs for the Canadians ever since their sojourn in the Ypres salient, so they got keen enjoyment out of going to "support" after doing a trick in the trenches "up front," and gas sentry duty and keeping up communication with the front was considered comparatively light work. The company for reserve was more or less similarly placed, but usually farther in the rear. It was more mobile, and could be used for counter-thrusts on either the left or the right subsector, according to the decision of the officer commanding the battalion. Obviously, therefore, it was not quite so much in contact with the line as the supports. But it had pressing duties to perform and had

to see to it that communication with Battalion Headquarters was maintained.

In normal times, support and reserve positions were hailed with delight, and were often voted better than rest by the majority of the men; but in the Vimy area there was work, and hard work, for every man, all of the time he was not actually fighting. The entire area showed that plans of defence were being formed to meet every contingency, and to provide against the success of the enemy in storming the Canadian line. New trenches were being built and protected, machine-gun emplacements put in, dug-out space made, and miles and miles of wire entanglement strung. The work was cheerfully done by all, with the spirit that was winning the war. The tasks were for the most part of a primitive nature, digging, carrying, and hauling, and these tasks were performed by men who, in many instances, only a few months before had been living lives of comparative ease.

3. The Work of the Artillery and Cavalry

So far infantry operations have been mainly considered, but the work of the artillery was quite as important. Without the guns, the infantry would have been pinned to their trenches and an advance would have been an impossibility.

The artillery had by now demonstrated clearly its ability to assist and protect the infantry and stood in great favour with the latter. The artillery was so close in the fight at the Battle of Vimy Ridge and later, as was proved by its heavy casualties, that no longer was the remark heard that "the artillery operates from a considerable distance." Each division had its own artillery, and there was in addition the corps artillery. It had at this stage reached a degree of surprising proficiency. Batteries had been increased from four to six guns, most of the field batteries being

composed of four 18-pounders and two 4.5-inch howitzers. Liaison with the infantry had been an important factor in perfecting the co-operation between the two arms of the Service, each battery sending an officer to the Battalion Headquarters it covered. The result of this co-operation was quicker and more effective retaliation for enemy bombardment and the more accurate locating of strong points, things which helped greatly to increase the *moral* of the infantry. The constant changing of this officer resulted in the closest friendship between batteries and battalions,—an important matter when engagements were under way.

Following the Battle of Vimy Ridge, when so many Canadian batteries dug in in the open on the forward slope of the ridge, the artillery experienced all the hardship of trench warfare. The men lived in dugouts, and on account of the nature of their duties were more exposed than the infantry, and consequently were heavily shelled by the Germans. The camouflaging of guns here became a distinct art. The guns themselves were painted the weirdest colours; and a network of screens on the side, top, and front of the gun emplacement were frequently covered with a representation of trees, grass, or buildings; and the danger of discovery from the air or ground was thus greatly minimized.

The artillery had demonstrated the effectiveness of the 18-pounder field-gun. Shortage of ammunition was no longer in evidence, and the speed with which the crews operated their weapons proved that the Canadian guns possessed an effectiveness equal to the much-lauded French 75's. In action, Canadian crews have fired as many as twenty-two rounds per minute per gun—a performance not often surpassed by the French guns; and, with their somewhat heavier charges, the Canadian weapons proved rather more effective in laying down a barrage or breaking up an attack. Each battery had one gun in a forward posi-

tion, and the effectiveness of this gun when firing at point-blank range on strong points or enemy working parties can be imagined. A great many entire batteries throughout the Canadian front were registered at point-blank range on the German lines and remained so for cases of emergency. The field-guns were, of course, in the closest proximity to the enemy, and, contrary to the layman's understanding of the matter, a battery was not apt to be directly in rear of the battalion it covered. It might be a mile or two to a flank, and its fire would, of course, come obliquely over a portion of the line it protected, in order to reach the enemy line. The benefit of this arrangement was twofold; it protected our own men from the bursting of shells, which must be low, on account of the short range; it also increased the difficulty of observation by the enemy in picking up the guns' position.

Further to the rear were the heavies—6-inch, 9.2-inch, and 12-inch and 15-inch howitzers. Night and day they carried on their work of demolition, and during the show of Vimy Ridge, and later at Hill 70, they played a very important part in the barrage and had no small share in the success gained. The effect of one of their large shells was appalling. But they were needed; nothing less than our heaviest guns would have made any impression upon the enemy's fortifications at Lens.

The barrage map shown on the accompanying page will give an idea of the effectiveness of this modern method of attack. Copies of the map were in the hands of the infantry officers going forward, and by means of their synchronized timepieces they knew accurately the moment at which a barrage would lift and creep on to its next line. "0" represents zero hour, and "0-2" means that the barrage stays on this line for two minutes, when it lifts to the next line shown, perhaps fifty yards ahead, where it remains for two minutes more, and lifts again. On well-fortified trenches

BARRAGE MAP
Cité St. Theodore
Cité St. Laurent
Jumping Off Line
1st Cdn Div.
2nd Cdn Div.
Cavalry
Cyclist
Cooper
Chancery Lane
Reserve Tr.
Horse Alley
Honey Alley
Humbug Alley
Hurdle Trench
Catapult Trench
Nelley Tr.
Nash Alley
Nexo Alley
Cambrai
Combat
Colton
Nutmeg
Brick Works
Pink Lights
Old Lights
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or positions the barrage remains longer, and being timed as it is, the officers in charge of infantry parties know exactly how much time they can afford for "mopping up" positions, sending prisoners back, etc.; for to obtain the maximum of result it is necessary that the advancing infantry should keep as close as is practicable to their own barrage. It is a matter of considerable interest to note how few casualties are experienced in going forward behind a barrage. After No Man's Land was covered, so long as the infantry kept well out of the way of the wall of fire laid down by their own guns, practically no casualties occurred, —a positive proof of the effectiveness of the new system of artillery preparation and attack.

Previous to the Hill 70 show, an artillery officer stated that the Canadian guns had registered no fewer than a hundred and twenty-one guns in the enemy's line. The best results would not have been accomplished by repeated shelling of these registered positions, as it would merely have caused the enemy to adopt new ones which might or might not be located. During a show, counter-battery work takes up a great deal of the artillery efforts. It is then that these located batteries are heavily shelled and put out of action, and the success of this is soon apparent to the infantry. If the enemy's artillery retaliates speedily and in force, it can be assumed that a good many batteries have escaped; if, on the other hand, the infantry is able to dig in and consolidate his new position with very little opposition on the part of the enemy artillery, it is pretty well assured that his artillery has been demoralized by the superiority of ours.

Each engagement has its lesson for all units concerned. The adverse weather conditions during the advance of April 9th prevented the bringing forward of the guns to advance with the infantry. This militated in no small degree against the completeness of the victory; but for this Lens might have been occu-

pied. The lesson was taken to heart, and for future advances road-making was vigorously proceeded with; and in the fight at Avion and in the Battle of Hill 70, which will be dealt with later, even had the troops suffered from the handicap of bad weather the guns would readily have been moved forward.

In the South African War cavalry played a most important part; but in the Great World War, until its final stage, this arm of the Service was very little in evidence. Cavalry could only operate to advantage in the open and trench warfare had blocked the efficiency of mounted troops. To send horsemen in a wild charge over ground pitted with shell holes, or through barbed-wire entanglements, even after they had been subjected to the most powerful artillery fire, would have been suicidal.

The Canadian Corps Cavalry was eager to play its part, and a very essential part it did play in many hard-fought battles, such as the Battle of St. Eloi, but it was as foot-soldiers. However, it had its own peculiar duties to perform and was continually engaged in patrolling roads and conveying prisoners from the advance cages for disposal at Corps Headquarters. It did its share in the front line, and the sight of the mounted men going to or returning from their duties caused the infantrymen, wearily plodding along on foot, some pangs. Until the enemy was forced to accept a war of manœuvres, cavalry actions of any importance were out of the question, and it was not until the final months of the war that the cavalry was to come to its own. When occasion presented for daring, dashing work, the mounted troops from Canada were to prove themselves the equal of any in the field. Meanwhile the infantry, artillery, and airmen had the field much to themselves.

4. A Change of Commanders

In May, 1917, it was rumoured that the Canadian Corps would have a new commander-in-chief, and speculation was rife as to what officer would succeed Sir Julian Byng. It was surmised that a Canadian would be appointed, and General Turner and General Currie were the favourites among the men of the fighting forces. The matter was still in doubt when, on June 10th, General Byng issued a special order of farewell. The message was as follows:

"In saying good-by to the corps, I find it very difficult to give expression to the feelings of pride and affection which dominate all other sentiments. During the year of my command, the unvarying success in battle, the progress in training and discipline, and the unswerving devotion and loyalty of all ranks are features which stand pre-eminent in the history of the corps; that history will last forever, and my association with you in the making of it is a joy that can never be impaired."

On June 19th it was announced that Major-General Sir Arthur Currie, who had been awarded a K.C.M.G. earlier in the month and was soon to be dubbed a knight by the King upon the battlefield of Vimy Ridge, had been authorized to take command of the Canadian Corps. General Currie's military career had been meteoric, and well illustrates the possibilities for natural talent. He had had considerable experience in the Militia prior to the war, and was one of the first Canadians to volunteer for active service when the call came in August, 1914. He was popular with the Canadian Corps, and his views on conscription, possibly, made for a considerable amount of his popularity among the volunteer soldiers he commanded. The four divisions must be kept at fighting strength, and General Currie saw, early in 1917, that the only way his command could be kept at fighting strength was by conscription.

The statement of this view caused some criticism of the new commander, but the criticism was little more than "political criticism." His well-known message to the *Montreal Star,* advising that at the front Canadian news was not pleasant reading, accounted for some adverse comment; but his knowledge of the matter was deep, and he represented the men he commanded.

This statement, as well as the fact that he did not hesitate to back the Union Government because of its conscription platform, called forth much comment at the time; but the storm was political only, and universally accepted as such. General Currie was a soldier, and that alone was his job, and the growing efficiency of the Canadian Corps under his command testified to his ability as a military leader.

On June 22nd, Sir Arthur was gazetted lieutenant-general, receiving his promotion at the same time as Major-General Turner. On his appointment Sir Robert Borden sent him the following congratulatory message:

"To General Sir Arthur Currie, the new Canadian Commander of the Canadian Army Corps at the front, my colleagues and I send hearty congratulations on your appointment to the command of the Canadian Army Corps. We are confident that the gallant Canadians who already have brought such splendid distinction to their country, and such magnificent support to the Allied cause, will have an equally glorious record under your command. We bid you all God-speed in the great work which lies before you, and send the firm assurance that Canada will, without fail, give to you and the officers and men under your command all needed aid and support to maintain your efforts, and to secure success."

The prime minister received the following cable from General Currie in response to the message of congratulations:

"I sincerely appreciate, and am deeply grateful for, the kind message of congratulations from yourself and colleagues. My pride in commanding the Canadian Corps is surpassed only by my determination to serve it in such a manner as will ensure its splendid reputation being maintained, and as will merit the approval of my countrymen. I note with special gratification your assurance that the troops in the field can rely upon Canada giving them all necessary support. They have given their blood freely to maintain their nation's honour, and now they confidently expect that the full fruits of their sacrifice will not be prejudiced. It is an imperative and urgent necessity that steps be immediately taken to ensure that sufficient drafts of officers and men are sent from Canada to keep the corps at its full strength."

General Currie is now (November, 1919) in his forty-fourth year, having been born on December 5th, 1875, in Napperton, Ontario, a village a few miles west of Strathroy, and close to the line of division between Middlesex and Lambton counties. He was educated at the Strathroy Collegiate Institute. In 1893, at the age of eighteen, he went to Sydney, B. C., where he secured a position as public school teacher of that village. He remained there for several years, and then, attracted by the possibilities of the insurance and real estate business, moved to Victoria, B. C., to take up that work, gradually developing his interests until he became the senior partner of the firm of Currie and Power.

From his earliest manhood General Currie had taken an active interest in military affairs. He was the first commander of the 5th Garrison Artillery, and had no small part in its organization. He served for fourteen years with this unit, leaving the artillery, no doubt, with the desire for minute knowledge of the infantry branch of the Service. He organized an infantry militia regiment, the 50th, the Canadian Gordon High-

landers, and was soon gazetted lieutenant-colonel of that regiment. He displayed considerable interest in rifle-shooting, and in 1907 was president of the British Columbia Rifle Association. In 1901 he married Miss Lucy S. Chawsworth-Musters. General Currie's military career was thus very similar to that of hundreds of other Canadian officers. What is the secret of his wonderful success? There is something in his personality that inspires faith, both in the minds of the High Command, who believe that this man can accomplish tasks, real tasks, and in the minds of his own staff, who are inspired with the perseverance which forms so great a part of the mental and physical make-up of the Corps Commander. A British general who stands high in military circles was asked his reason for General Currie's success. His answer may be briefly summed up thus: Currie has made war a business. He has slung the millstone of military tradition overboard, and run his army on business lines. He is the managing director; his working capital is the lives of 125,000 Canadians entrusted to his care. He carefully watches his expenditure, and mentally keeps a profit and loss account of each engagement. Such is the man, and his dividends have been many.

From the beginning of his war career General Currie had the utmost faith in his men, and his private letters always showed intense pride in his command, and the "indomitable fighting spirit" of the Canadians was his favourite phrase. In a letter to Sir William Hearst he said: "We have taken every objective from the enemy we started for, and have not had a single reverse. All this testifies to the discipline, training, leadership, and fine fighting qualities of the Canadians. Words cannot express the pride one feels in being associated with such splendid soldiers." His personality seems to be the same under all conditions. He is a giant in stature, but with it there is a certain impression of boyishness as his

genial smile is encountered. His conversation is easy, although there is an impression of restraint. He does not waste words, and the trust that he places in those under him accounts, in no small degree, for his wonderful popularity. Discipline is his hobby. He enforced it in his own brigade, and when commander-in-chief of the Canadian Army Corps, in his inimitable way caused divisional commanders and brigadiers to obtain the same discipline for him. The result was that the corps was noted for its efficiency; so much so that even the famous British Guards Division took pride in fighting side by side with Canadians against the common enemy.

The Second Battle of Ypres is now history. It was the first big engagement of the Canadians after reaching Flanders, and General Currie's conduct in that battle, when he doggedly held his line in front of St. Julien against overwhelming odds, had a great deal to do with the satisfaction felt by the rank and file on his attaining the corps command. His reputation was enhanced at Sanctuary Wood, and Lord Beaverbrook, in his second volume of *Canada in Flanders,* writes of him: "Major-General Currie exhibited the skill and resolution which he had shown in so marked a degree at the Second Battle of Ypres. He achieved, however, so great a reputation at that action that it would seem almost superfluous to mention that the conduct of affairs in his hands was efficient and successful."

As in the case of many men who have lived through the hell of the last few years, General Currie's views have broadened in every direction. In addition to a never-failing desire to make a perfectly disciplined machine of his army, his own life showed an earnest endeavour to fit himself for the great task that his country had entrusted to him. The text of an utterance which bids fair to become of historic value was made by Sir Arthur Currie during a visit to London, and represents a stern message from his Army Corps,

and also reflects to a degree his clear and generous attitude.

"The situation is a serious one, and it is better for all people to know the facts; Germany has struck four mighty blows with success on each occasion, and it is just a question of how many of these blows we can stand. Personally, I think that the factor that can be turned in our favour is this: If we stop and fight the Boche, we shall kill a sufficient number to make them weaken, while America develops enough strength to turn the man-power in our favour. The British soldier realizes that he is a better man than the Boche, and he believes that the German army can be beaten. Our men do not regard the Boche as a superman, and remembering the crimes they have committed, we shall never take such delight in killing them as when we next meet them. Germany is simply a mad dog, and it must be killed,—a cancerous growth that must be removed. I suppose I am the proudest man in the British Isles to-night, but I am not the happiest. I am the proudest man because I command the finest fighting force in all the Allied armies. When we came to England first, we were not regarded as the finest fighting soldiers. We had many things said about us unjustly, and suggestions were put about that it was improbable that we should ever become good soldiers; everywhere to-day, at G.H.Q. and all other places, it is recognized that Canadian soldiers are fit to take their place beside the veteran soldiers of the British army, with whom we are proud to serve. I know it has been said that Canadians and other overseas troops are placed in the hottest parts of the war area; that is all poppy-cock; the greatest fighting in the war has been this year, and we have not taken any particular part in it. The Boche has not, yet, attacked the Canadian front; the turn of the Canadian Corps must come, and the temper of the Canadian soldier is that there is no position he is asked to take that he will not take, and I know

that the Boche will not take any part of our line except over the dead bodies of your Canadian fellow-citizens. This is why I am not the happiest man in the British Isles to-night. The Canadian Corps is going to die, and it is simply a question of who can stand killing the longer. I have never seen the corps in finer fighting fettle than it is to-day. The Canadians in France are now more efficient than ever; and we could not be in that position unless we were backed up by General Sir Richard Turner and his staff in England. There is a feeling of co-operation now that never existed before, and the better the liaison we have between France, England, and Canada, the better it is for the fighting forces, and so we stand in a great cause on the eve of great events. We have to preserve the British Empire. It would be a terrible calamity if anything should happen that would make the people of the British Empire hesitate at such a juncture; the British Empire must be saved."

5. King George V at Vimy Ridge

While on the Vimy front the Canadian Corps had the signal honour of receiving a visit from the King. Early in the morning of the 11th of July, the commander of the First Army, Sir Henry Horne, and his staff and General Sir Arthur Currie met the King on the roadway near Arras, and drove with him east towards Souchez, and from there directly through the battlefield where, two years before, the French fought some of their most terrific battles. The news had spread that the King was coming, and thousands of soldiers along the road cheered him as he passed in an open car. No special parade had been called in honour of his visit, the King preferring to review the men at their ordinary tasks, whether it were field manœuvres, regular training, or taking part in the many games which formed an important part of the

training syllabus. There was no guard of honour, and the King, leaving his car, merely walked informally through the lines, shook hands with officers, complimenting them where compliment was due, and here and there questioned a soldier regarding food, clothing, and other matters of a vital nature. Presently he stopped at one of the numerous cemeteries that dot this part of France all along the battle-front. The King went alone silently down the lane of Canadian graves, his eyes noting the names on the little white wooden crosses which told of Canadian soldiers who had fallen in the Empire's cause. The Royal party then ascended to the crest of the ridge and looked over Lens. The King studied with interest the line of consolidation from Lens southward as far as Fresnoy. That he was able to stand here in comparative safety was due almost wholly to the gallant conduct of the men of his Canadian dominion.

The ceremony of knighting the commander of the Canadian Army Corps was performed by the King on the shell-torn field that, on the 9th of April, passed into the hands of the Canadians. After the ceremony the King returned to his waiting car. On his way he again paused before the scattered graves with which the ridge is dotted. Before one grave "To an Unknown Canadian" he stood for some moments apparently deeply moved. Turning to one of his staff, he remarked: "It is hard that any one of these brave fellows should be unknown. The world ought to know every one of them."

6. Trench Raids around Avion

There had been a lull in battle operations at the front, but towards the end of July the offensive tactics of the Canadians were renewed with a successful raid just south of Lens, near Avion. The official *communiqué* states that the enemy's position was pene-

trated on a front of six hundred yards to a depth of three hundred yards, and, in addition to capturing fifty prisoners, heavy casualties were inflicted on the enemy.

Shortly after dark on Sunday night of July 22nd, our guns put down a heavy barrage on the German lines. The raiding party then attacked. Our barrage smashed the ground above the brick-fields south-east of Avion, and right up to the embankment along the railway line from Mericourt to Lens. The Canadians were hand to hand with the enemy a few seconds after the barrage lifted, and the enemy outposts were gathered in without much resistance. Farther on, across the brick-fields, the Germans put up some resistance, and for several minutes heavy fighting took place. But the Germans were forced into their dug-outs. They refused to surrender; there was no time to lose; so they were bombed in their dug-outs, and their losses must have been great. The Canadians had endured a gas-shell bombardment all through the evening of the attack, and this manner of paying off this score was a fierce, grim satisfaction. Before daylight the raiding party returned to their own lines with but few casualties. Later in the day the Germans bombarded our lines violently and attempted a counter-attack, but they were everywhere beaten back. These raids were having the desired effect on the enemy. They were being carried out in strength, with the greatest dash and tactical skill, and as a result the enemy opposite were "jumpy" to an amazing degree.

Artillery activity was increasing, and more and still more guns were being brought to the Lens area. We seemed to be on the eve of a fresh struggle; each night artillery activities from both sides increased; a duel was on which experience taught us meant the coming of a battle. Around Avion and Liévin high-explosive and gas shells were constantly in use, and infantry patrols on both sides were eager and daring in their

search for identification. One Canadian patrol of ten men, with a lieutenant in command, went out to examine an isolated row of miners' houses in front of their own line. The enemy was so near that the utmost caution had to be used, and they went forward feeling their way by the light of the moon which every now and then emerged from behind thick clouds. Forward they groped their way through the trenches, seeking for signs of occupation. The officer and two of his men were in one of the houses when sounds outside warned them of the approach of a considerable body of Germans. Taking shelter in the shadow of the ruins, these three Canadians lay motionless while more than forty of the enemy passed through the very house in which they were concealed. As the enemy were headed in the direction of the Canadian front, they were undoubtedly making for the rendezvous of a raiding party. Collecting his little band, the officer sent a man back to warn their comrades in the Canadian trenches; then he and the remainder of his men followed the enemy, stalking them so successfully that they got within bombing distance undiscovered. The report of bombs in their midst was the first intimation to the Germans that they had been seen. They were dispersed, and with some casualties.

Almost nightly raids, in such strength as to seem attacks in force, were carried out. Each day saw a small stretch of territory gained here, and an advantageous position won there. This energetic warfare was having a most wearing effect on the enemy, and he was becoming greatly concerned at the persistent aggression along the Canadian front. Each dawn he put down a heavy barrage along our lines, and throughout the night his flares and searchlights were constantly searching the ground. Meanwhile our artillery fire was ever on the increase, and Lens was daily receiving an avalanche of shells. Gas was being used in abundance, and during the hours of darkness

gas shells were continually bursting in the midst of the Germans, while drums loaded with the poisonous vapours sprayed them with death.

A raid of more than usual importance was staged for the night of the 9th of August; it was one of the most daring of the war and proved to be one of the most effective. During its progress documents were captured which clearly indicated that the Germans were expecting a visit from the Canadians. One order was found providing for a reduction in the number of dug-outs in the German front line system. This was in the hope of preventing the men in the trenches from being caught in their dug-outs and being forced to surrender when attacked. The *moral* of the enemy was weakening; at the first sign of a bombardment, instead of standing fast to repel attack, they rushed to their dug-outs as a safety-first measure and were often caught like rats in a trap.

About this time the Canadian Cavalry Brigade suddenly jumped into prominence by carrying on what is described as "the most successful long-distance raid" yet delivered on the British front. The raid was timed for early morning, and the Royal Canadian Dragoons, Strathcona's Horse, and the Fort Garry Horse were all represented; over one hundred strong, they went out under a heavy artillery barrage. The advance was preceded by parties carrying bangalore torpedoes —long tubes filled with ammonal—to blow up any wire that remained after the barrage had passed over. The raid was entirely successful, and it is estimated that two hundred of the enemy were accounted for. The attack was well staged, and the raiders were almost back to their own lines before the Germans recovered from their surprise. One officer was killed on the return, and twenty men slightly wounded.

7. The Battle of Hill 70

The morning of August 15th, 1917, saw the great advance at Lens. For weeks the Canadians had been anxiously awaiting the dawn of this day. One division at a time, the entire corps had been training and fattening up for this engagement. The area around Neuville-St. Vaast, Mont St. Eloi, Bouvigny, and even back as far as Houdain, was taped off here and there into mysterious blocks with sections, platoons, or companies darting from point to point. It was a graphic illustration of the thoroughness of modern trench warfare. Every unit was detailed with the greatest exactitude, and knew just what trenches or ground had to be taken from the enemy. The trenches were represented during training by tape laid out by the engineers, and their shape, the distance to them, and the obstacles to be overcome were shown. Thus every officer and every man knew, before going into action, just what was expected of him. For weeks the weather had held up this engagement, which was planned to force the enemy from Lens and the commanding country just east of Vimy Ridge. His position from Oppy and Fresnoy, north to Acheville, Mericourt, and Lens, was consolidated to the utmost degree and designed to protect important railheads at Rouvroy and east of Lens. His wire entanglements seemed impassable, and as they reached his own trenches they were raised four, five, and six feet in height. It seemed to us that not even the artillery, which at Vimy Ridge had caused the heaviest barriers to disappear under their awful rain of high-explosive shells, could demolish the wire defences. The enemy was alert. His patrols were daring. His artillery was ever increasing in volume, and his aeroplanes were most persistent in observation, in bombing our trenches and rear areas, and in fighting.

At 4.25 a.m. the Canadians advanced, the 1st Division

on the left.[1] Then the 2nd Division, with its left flank on the Cité St. Laurent-Hulluch-La Bassée line, and the 4th Division immediately south of Cité St. Laurent and St. Émile. The 3rd Division was in reserve. Under cover of the deadliest fire from our artillery, a fire which blasted the contour of the ground as it slowly advanced, and which seemed to rock the entire earth, the Canadians moved forward. The breaking dawn was turned to a lurid glow by the constant flash of our big guns, and the torn ground was lighted to a likeness of a scene from Dante's *Inferno*. The first objective was reached in sixteen minutes, and consolidation rapidly commenced. Four hundred yards of ground was gained across the entire front. In eight minutes more the second wave passed over for the final objective; and who, of those who were able to take part in the Hill 70 show, will forget the fifty minutes it took to reach Hugo Trench on the left, Norman Trench in the centre, and Nun's Alley on the right. Altogether the Canadians penetrated the Hun lines to a depth of one mile on a frontage of two miles, and the operation resulted in the gain of Hill 70, the ground east of Loos made historic on September 25th, 1915, by the British, when two divisions, after a terrible struggle, gained a foothold on this famous key to Lens, and, in spite of overwhelming odds, held it for one day, almost surrounded by the enemy. Besides Hill 70, the Canadians captured the villages of Cité St. Laurent, Cité St. Elizabeth, Cité St. Emile, and a portion of Cité St. Auguste.

This advance had been preceded all night by a steady stream of high-explosive shells into the German lines, which were clearly the forerunner of an attack. Night was made hideous by the constant roar of the detonations, and then, a short time before zero hour, the batteries abruptly ceased, and a strange, oppressive stillness reigned. Suddenly every gun in the area once

[1] See Barrage Map, *ante*, p. 183.

more opened up, and the barrage was on. Solid lines of vivid lightning rose from the German lines as the explosives struck them. The earth rocked with the concussion. The soldiers, realizing that the frightful din raging behind them was for their protection and assistance, became strangely exhilarated, but calm, collected, and deadly deliberate. Advancing under cover of a barrage is one of the supreme moments in a soldier's life. It had been instilled into the mind of every Canadian soldier that Hill 70 had to be taken, and to a man they were ready for the task. Documents captured during the attack proved that the Germans knew the exact hour at which the assault was to take place, and that they had made every possible preparation to hurl back the invaders. These orders stated that the Canadians would attack. They pointed out the need of the strictest vigilance and outlined counter-attack schemes which were to be carried out with promptest despatch. But so intense was the fury of the Canadian attack — artillery, machine guns, and infantry working in perfect unison — that nothing could stop the advance, and Hill 70 swiftly changed hands.

A feature of this battle was the use of oil drums, which threw immense quantities of burning oil into the enemy trenches. These streams of hissing flame, of the weirdest pink colour, caused the utmost demoralization to the Germans and rendered the winning of the first objective an easy matter. The first phase of the battle was from Hugo Wood, in a south-easterly direction, closing in to the north of Lens itself. The 1st and 2nd Divisions were engaged, and with the exception of one incident all objectives were located and gained without serious hindrance. The two divisions were to link up in Norman Trench, the final objective in that sector, and the two battalions to join up were the 8th and the 26th. While the battle was in full swing, it was reported back through Headquarters that the latter battalion had not joined up, but it was soon discovered

they were in the appointed place, but with their left flank in the air. Orders came through that the advance on the extreme right of the 1st Division must continue, and at 4 p.m. the same day one of the most spectacular sights possible to imagine occurred. The 26th Battalion, from the vantage ground on the immediate right, witnessed, step by step, the jumping off of the battalion that was to protect their flank, the immediate barrier of fire laid down by the enemy, and, step by step, this battalion closing up on its objective. Shells bursting here and there wiped out sections, but still the battalion moved forward as steadily as if on parade, and was soon at grips with those of the enemy who held their ground. In a short time the proper line was established and consolidated, and connection established.

In this battle a matter of great importance was the co-operation of the Air Force in the sending out of what are called "contact patrols." When the infantry reached their objectives, they ignited ground flares, which were easily discernible by the low-flying aeroplanes, circling overhead to register properly the location of our own men for the benefit of the artillery. This was of vast importance. Earlier in the war, when over-eager troops frequently penetrated far beyond their objectives, or others were held up by a local stubborn resistance by the enemy, it was sometimes a good many hours before satisfactory artillery support or much-needed reserves could be pushed forward. But at Hill 70 perfect co-operation between the infantry and the airmen enabled the latter to keep the artillery and reserves thoroughly informed regarding the progress of the advance.

When the consolidation of the new line began the victors were made to realize the strength of the defences they had overcome. The enemy had safeguarded his position by means of numerous pill-boxes. What had originally appeared to be the ruins of

workingmen's houses on the southern edge of Lens were discovered to be lined and interlined with trussed concrete. The walls were from six to eight feet thick and practically impregnable to even the heaviest shells. One of these pill-boxes, armed with machine guns, could hold up an advance on nearly a mile of front. The most successful way of dealing with these isolated posts was by means of the tanks; these awe-inspiring land-ships would bear down on them in spite of fusillades from machine guns; when once the opening was reached, it was a short matter to dispose of the garrison. The German machine gunners were picked men, and, as a rule, were superior to the rank and file of the infantry. One case is cited where two German machine gunners, in a short fortified section of Nestor Trench, to the immediate left of Fosse 14, held up the advance at this point for several minutes. In spite of the fact that about them scores of their trembling comrades stood with their hands up, crying "*Kamerad*," these two carried on. Even when surrounded and our men had crept up to the parapet of their position, and they could not deflect their guns sufficiently to deal with them, they held out. When No. 1, in charge of the gun, was killed at a distance of five yards, No. 2 stepped forward and carried on his hopeless task. He was not long in joining his comrade.

During the night of the 15th–16th, the Germans launched five furious counter-attacks in an attempt to regain a footing on the slope of Hill 70, but so admirable was the Canadian artillery support that all his attacks were broken up, and the few of the enemy who were able to leave their own line perished in the terrific storm of shells that beat upon them.

Meanwhile, the 4th Division in the second phase of the battle launched an attack on Lens proper. Strangely enough, the Germans had fixed exactly the same hour to launch an attack for the purpose of penetrating our line south of the ground gained by the

Canadians in the previous day's fighting. The two forces met in No Man's Land. They met in the open, but between two walls of shells that made a live barrier, cutting off Canadians and Germans from their support, but for a moment harming neither. Bayonets were used fiercely on both sides; and the intensive training in bayonet fighting that the Canadians had recently undergone, told in their favour. Relentlessly they pressed back their opponents step by step, and succeeded in reaching the very outskirts of Lens. Here they were forced to pause and consolidate their new line. Lens itself could not for the present be wrested from its holders.

In the first five counter-attacks launched by the Germans, six divisions were used. They were the 7th, 8th, the 4th Guards, the 11th Reserve, the 220th Reserve, and the 1st Guards Reserve. It was estimated at the time that fifty battalions, at least, were used against the Canadians to regain the positions lost at Hill 70; later it was definitely established that forty-eight was the actual number taking part. Stringent orders had been issued to retake Hill 70 at all cost, and the Germans put forth prodigious efforts to this end. A terrific engagement took place at what is known as the Green Crassier, which is merely a heap of mine refuse overlooking the central railway station of Lens, and about three hundred yards south of it. The Germans were firmly entrenched there, and were able to reach it from tunnels which had many secret exits into the network of caves underlying Lens. Shaken as the Germans were, they made a strong resistance here, and deadly hand-to-hand fighting took place. Bayonets and rifle butts, fists and boots, were used in the struggle, and only the strongest men won. Some of the captured posts were, of necessity, isolated, and the troops holding them had to endure stiff fighting until consolidation could be carried out. The heart of Lens was still a fortress untaken; but it was enclosed on

three sides, and instead of being a bulwark of safety for the German railheads to the east, it afforded a precarious barrier in front of the victorious Canadians. Losses had been heavy, but important ground had been gained and there was the knowledge that the network of tunnels in and about Lens were veritable death vaults to the enemy.

In the assault of Hill 70 a new formation of attack was put into practice. It can be readily seen that as soon as an attack is launched the individual control of a battalion, or even a company, is lost, and discipline and rigid training alone enable the plan of attack to be carried out. The battle strength of a company was, at this time, one hundred and forty-five, all ranks; a company is divided into four platoons, and each platoon into four sections, the sections — respectively composed of Lewis gunners, bombers, riflemen, and rifle-grenadiers — having each its peculiar duty to perform. The sections mutually supported one another, Lewis gunners protecting the short advances of the riflemen; rifle-grenadiers, from a distance of seventy-five or eighty yards, dropping their grenades into strong points; bombers from closer range keeping the enemy under cover during the final assault of the riflemen. During training, previous to an engagement, men are numbered off, and if a N.C.O. becomes a casualty his immediate junior takes command, and so on down to the last man. The effect of this organization has proved its wisdom; in such an army it is not a case of "theirs not to reason why," but every man knows the plan of attack and the intention of his commanding officer.

During the battle of Hill 70 the greatest credit is due to the Canadian artillery. It poured its shells into the German lines with remarkable precision and cooperated magnificently with the Royal Air Force, which included observation balloon sections. Hundreds of enemy guns were located and carefully regis-

tered, pending the moment of attack, correct ranges were obtained on countless strong points of fortifications, and all with a cleverness which prevented the enemy from changing his position. The contrast with the last two years of the war, when our artillery as a menace to the enemy was merely in the making, had the greatest heartening effect on the soldier. Up to this time there had been a shortage of shells, and the enemy fire had to be endured with wholly inadequate retaliation. The volume of explosive that backed the infantry advance at 4.25 a.m. on the 15th and the speed with which the gunners replied to every counter-attack put heart into the men going over the top or holding lines they had wrested from the foe.

8. A Change in Enemy Tactics

As the war entered its fourth year, the Germans considered a radical change in their defences along the British front in France necessary. The dug-outs, deep and built to shelter adequate reserves for their front line, were being discarded, and a different system of defence inaugurated. They were now manning their forward area with forces scattered over considerable depth. Before this time the enemy had resisted attack with a solid bulwark of men, and the main line of resistance was the front line. The constantly growing strength of the British artillery had caused havoc in the enemy's forward area, and the more troops manning this system merely meant an increase in casualties. Then his heretofore famous dug-outs now proved themselves to be man traps. The continual shelling from the Canadian front prevented proper repairs by the Germans. A change in tactics was a vital necessity, and from the time of the Hill 70 engagement, as captured documents proved, the enemy line of resistance was considerably behind his front line. His troops were advised to retire to the line of

resistance when heavy pressure was brought to bear on the front line. In contrast to this the Canadians had orders that "the front line must be held at all cost." It seemed to be the beginning of the end; the initiative was rapidly being taken from the enemy. Thus both on the Vimy front and in Flanders the German front line rapidly became merely a series of outposts, with the real line of defences connected by an elaborate system of tunnels. About this time, too, the enemy commenced camouflaging and manning shell holes. Trench systems, *fortins,* and pill-boxes could be located and photographed by the airmen, but, from the nature of the ground, these camouflaged shell holes were safe from observation. In them a few men with machine guns could easily hold up an advance, and they proved serious obstacles to the advancing Allies. The defences of Lens and of the suburbs which remained to the enemy gave striking examples of the German tendency to depend more and more upon countless detached garrisons rather than upon an unbroken front. Lens was rapidly becoming a city of concrete, and new tunnels connecting the different posts were daily being located.

9. Tightening the Lines around Lens

While the enemy seemingly had accepted defeat at Hill 70, he was not without hope of recovering some of the lost ground. The 4th Prussian Guards had been badly shattered in their efforts to stem the victorious Canadians, and the 220th Division was thrown into the line. Early in the morning of August 18th this division attacked, passing rapidly through the lines of the 4th Guards. Its objective was Hugo Wood, immediately north of Hill 70. As the division hurled itself into the fight it was preceded by liquid fire and gas. But the Canadian infantry sent up S.O.S. signals and instantly the wakeful artillery replied. The ad-

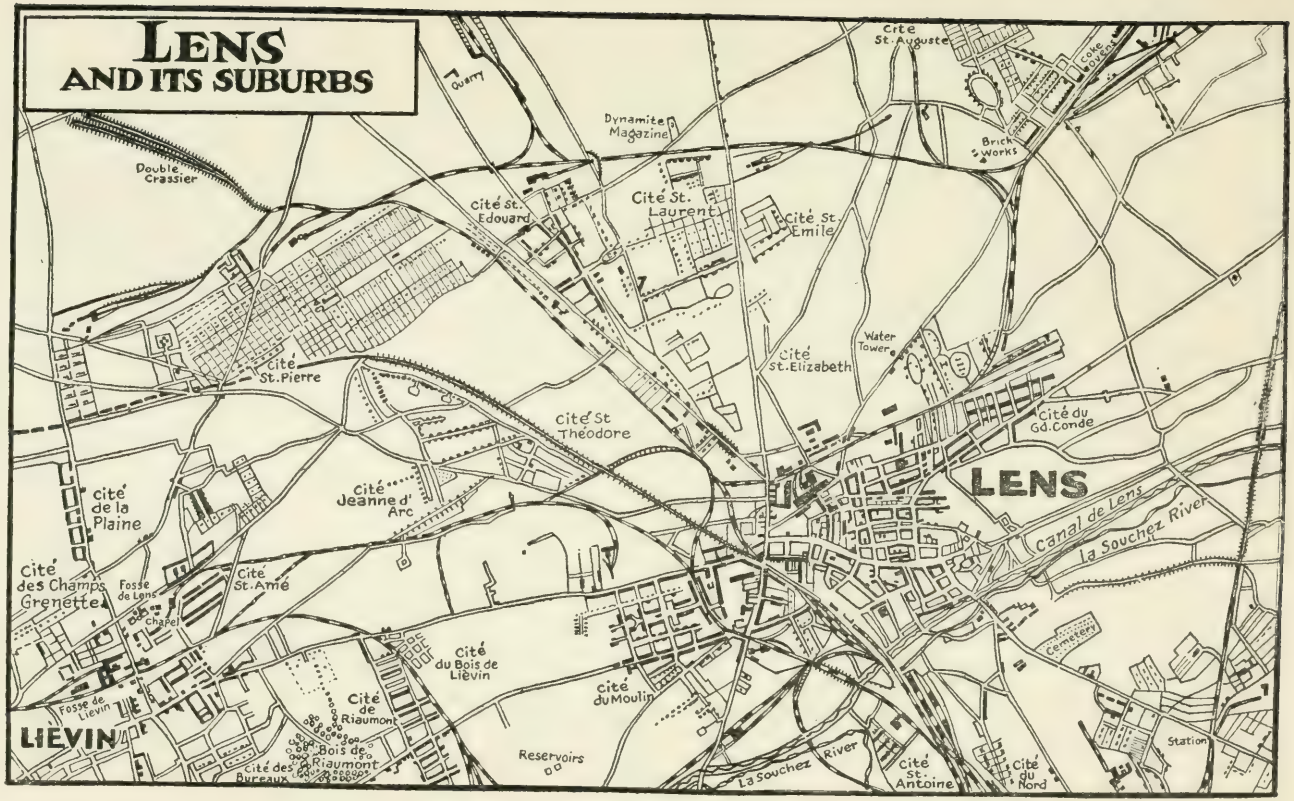
vancing foe was caught in a withering barrage, and, despite valiant efforts to break through, it was held up. A few men did succeed in passing through the barrage, but coming under concentrated machine-gun fire were shot down or forced to surrender. Almost at the moment that the attempt was made to recover Hugo Wood, another enemy attack in force was launched south of St. Laurent. Here the foe succeeded in entering a portion of our front line, but was immediately driven out by a counter-attack.

On August 20th, German storm troops renewed their efforts to win back Hill 70, the northern key to Lens. The artillery of the enemy was violently active and he was sending over large quantities of high-explosive and gas shells. Most of this shelling, however, was directed against our artillery, who were fighting in gas masks and who gave the foe more than they were getting.

On August 23rd, appreciations for the good work done at Hill 70 began to arrive from General Headquarters. Sir Douglas Haig sent the following message of congratulations to Sir Arthur Currie and the officers and men of the Canadian Corps in reference to the terrific fighting of the previous week:

"I desire to congratulate you, personally, on the complete and important success with which your command of the Canadian Corps has been inaugurated. The two divisions you employed on the 15th instant defeated four German divisions, whose losses are reliably estimated at more than double those suffered by the Canadian troops. The skill, bravery, and determination shown in this attack in maintaining the positions won against repeated counter-attacks were, in all respects, admirable."

Congratulatory messages were also received from the commanders of the Allies on the western front. General Byng, in his message, after expressing his delight at the last achievement of the corps, said that


LENS
AND ITS SUBURBS
Quarry
Dynamite Magazine
Cité St. Auguste
Coke Ovens
Brick Works
Double Crassier
Cité St. Edouard
Cité St. Laurent
Cité St. Emile
Water Tower
Cité St. Elizabeth
Cité St. Pierre
Cité St Théodore
Cité du Gd. Conde
Cité de la Plaine
Cité Jeanne d' Arc
LENS
Canal de Lens
La Souchez River
Cité des Champs Grenette
Fosse de Lens
Chapel
Cité St. Amé
Cemetery
Cité du Bois de Lièvin
Cité du Moulin
Fosse de Lievin
LIÈVIN
Cité de Riaumont
Bois de Riaumont
Cité des Bureaux
Reservoirs
La Souchez River
Cité St. Antoine
Cité du Nord
Station

his old comrades had been much in his mind during the progress of the operation.

The German official report on this engagement was very amusing in the face of existing facts. The report read that the Canadians attacked with four divisions at Hill 70 and St. Laurent, and failed to reach their objective, despite extraordinary losses.

Meanwhile, powerful but futile counter-attacks were launched by the enemy daily to the south and west of Lens; but all the ground won remained in the possession of the Canadians. But the heavy artillery fire being poured into our forward objective at St. Laurent prevented proper consolidation of the line in that quarter.

It must not be supposed that the Canadians were having an easy time of it. They were contending with a determined and resourceful enemy who never let them rest, launching counter-attack after counter-attack. The 22nd of August, for instance, was a day of grueling experiences. On this day one company of a British Columbia battalion, after fighting all day with bombs and bayonets, counted one hundred and twenty German dead in front of them, all of the 1st Guards Reserve Division. In the official reports the fighting was described as of a desperate character all along the western front and unsurpassed in fury.

On the 23rd the Canadians advanced on a front of seven hundred yards, the objective being the Green Crassier on the north bank of the Souchez river. This point of vantage barred our advance into Lens from the south. The task of storming this huge slag-heap was of the utmost importance, but it was a difficult undertaking. The water from the Souchez had inundated part of the ground surrounding it, and on its summit were a vast number of machine-gun emplacements. On this occasion the Canadians made their assault before dawn, and the Germans, who had been exhausted by the numerous counter-attacks of the

past week, were not on the alert, and the attacking force was in their very midst almost before they knew that an attack was on. A short, sharp struggle took place, but the garrison was quickly overcome, and the Canadians advanced systematically to bomb their way through the dug-outs and emplacements leading back to the city proper. On the following day, the Germans attacked the Green Crassier in great strength, and the Canadians were compelled to relinquish a portion of the defences captured on the 23rd.

In addition to the six German divisions already mentioned as being thrown into the fight against the Canadians, it has now been established that some portions of the 185th Division and the 36th Reserve Division were used. The total German strength thrown into battle at Lens must, therefore, have exceeded fifty battalions, and the German losses are estimated at between twelve thousand and fifteen thousand men. The Canadians themselves had been hard pressed at times during this exhausting week, but the determination to win and the fierce resolve to hold their gains enabled them to retain this sector, even against odds of two to one.

Testimony to the efficient Canadian artillery in co-operating in the big fight since the 15th was given by a wounded prisoner of the 190th Regiment, which was so badly cut up by fire in getting into position that it took no part in the battle, and had to be withdrawn. The prisoner stated that the 2nd Battalion of this regiment lost over half of its strength in St. Auguste, far back from the front, where they were awaiting orders. The concentration of fire which caused the losses was turned on as a result of a report from one of our aviators that the Germans were gathering for a counter-attack in St. Auguste. These losses of the enemy were so great that they caused the abandonment of all plans for the recovery of Hill 70.

The attitude of the French to the Canadians during

this struggle is depicted by the following tribute, which appeared in *Le Petit Parisien:*

"If it were known what human misery, abnegation, and self-sacrifice were involved in these 1300 meters of trenches recently captured by the Canadians in this corner of Hell, in which every German soldier fought like a wild beast, the people would be touched and thrilled."

An enemy officer remarked to a Canadian: "Only once have I known a class of soldiers as brave and thoroughly trained: von Kluck's men, in 1914."

In the struggle just described nothing is of greater interest than the development of the use of gas as an offensive weapon. This barbarous instrument of war was a German invention, but such vast strides had been made by the British in preparing gases that even in this department they had the superiority. The enemy's favourite gas projectile at this time contained what is known as "mustard gas." Experience had taught our soldiers invaluable lessons in combating it. When it was first used its effects were appalling, and in not a few cases total blindness resulted from contact with it. But our soldiers were swiftly armed to master it. The peculiar "dud" explosion of the shell containing it, and, in the daytime, its yellowish vapour, or, in certain atmospheres, more whitish, and the peculiar sweetish, sickening smell of garlic which accompanied it caused a hasty adjustment of gas helmets. Gas helmet drill was now one of the most important items of training. As much as an hour a day was laid down for this drill in the syllabus of training. Night marches and dummy bayonet fighting with gas helmets adjusted caused our men to be almost as much at home while wearing them as when without them. This training minimized the effect of mustard gas, even from the early days of its use. No chances were taken, and consequently casualties were surprisingly few. Very soon it became apparent that

the effects of mustard gas were not so deadly as at first reported. The blindness proved to be, in the majority of cases, only temporary, and this welcome news served greatly to increase the *moral* of our troops when a gas bombardment was put over. The Hun was still using deadly chlorine gas, the slightest bit of which entering the lungs was almost certain to cause an agonizing death; and no chances were taken.

Gas was now in regular use by our forces and the number of gas shells hurled into the Lens defences were daily increasing. It was used to shell trenches, batteries, transportation routes, and big concentration areas, so that the Germans were living in a constant state of torment and suffering in a peculiarly appropriate way. One dazed and gasping Prussian who fell into our hands exclaimed: "Your gas shells descend on us by the ton, and life in the underground defences of Lens is simply Hell." The Germans in this area were forced to wear their gas masks continually. Sentries at their posts among the slag-heaps, the gunners in their concealed batteries among the cellars of Lens, reserves groping forward in the darkness through the never-ending storm of shells, battalions "standing to," awaiting the alarm of fresh attack, in the gas-infested refuges beneath the ruins of this city, had to take what sleep they could with these oppressive coverings over their heads. One prisoner captured after the assault at Hill 70 said that it would be a great relief to the garrison if the Canadians should capture the city; they could then retire to the open country and in the fresh air live free from torture; but that as long as they were forced to hold Lens, the bulk of the troops had to remain underground, with gas drifting into the network of tunnels and settling there. The whole city was so accurately ranged by our artillery that it was death to try to remain on the surface.

The domination of gas slowly but surely killed the

activity of the German infantry, and soon the enemy confined his efforts almost wholly to bombardment. This state of affairs was regarded by the Canadians with grim satisfaction, as they recalled the agony of their own men at Ypres, when the Germans first loosed this diabolical weapon against a defenceless army. The Germans had come to regret ever having used it. A Prussian officer captured at this time asked:

"Do you think if we had not first used the gas, the English would not have tried it?"

"I am sure they would n't," was the answer.

"Then," he replied, "I wish we had the swine who began it. Our men have not gone in for crucifixion, although some of your Canadians think they have, but I think our own troops at Lens would willingly crucify the man who invented gas."

In fighting in this area the greatest care had to be exercised whenever an advance was in progress. In ingenious deviltry the Hun stood in a class by himself. Death-dealing traps were everywhere in the track of the retreating enemy, and the utmost caution had to be exercised to avoid them. Some of his methods called for no small amount of courage on the part of his own men. Occasionally a body of Germans would lie in a shell hole, feigning death. When our men passed over them, they would jump up and uncover machine guns, with which they would attack our men from the rear. Bombs were concealed in the small dug-out stoves, with wires attached to the doors. Naturally enough, a door would be opened sooner or later, and immediately the safety pin would be released and the bomb would explode, doing considerable damage to the garrison. One case is known where a low trip-wire with bombs attached was placed at the bottom step of a dug-out. In another instance an officer upon entering a dug-out picked up a fountain-pen lying on a shelf, and as soon as he removed the top it exploded and blew off his hand. Our troops by this time had

become too wary to be caught, and when a trench was captured the dug-outs were freely bombed, and then entered with the greatest caution.

From about September 1st, there was a marked lessening in the infantry activity on the part of the enemy. It was presumed, therefore, that he had given up any hope of regaining his lost ground in the Canadian sector. His artillery fire had lessened materially in volume, and it was evident that a good many of the German guns were being pulled out for work on the Flanders front, where the Allies were attacking in force. Trench warfare once more became normal; the weather was ideal; the troops had in turn all had a rest period, and frequent drafts were bringing battalions up to strength. The constant open-air training had brought all into the pink of condition, and the question was asked, " What is the next task? " The Canadians at this time formed part of the First Army, and it was soon announced that Sir Henry Horne, the army commander, would visit the corps. It was rumoured that he would bring an important message. When he arrived he addressed the officers of the various brigades, and announced that the Canadians would very soon be detached from the First Army and moved to the Flanders front, where they would take part in the battle raging there, a battle which it was hoped would have a decisive effect on the war.

Soon the slow trek northward began. Long marches by day and refreshing billets at night tended to invigorate the troops and fit them for the trying work before them. They were returning to Flanders to the battlefields on which the 1st and 2nd Divisions had fought in 1915 and 1916, and many of the " Originals " looked forward to renewing old acquaintances. There was grim work ahead of them; the long-drawn-out Battle of Flanders had now been raging for some weeks, but they entered it with buoyant spirits. The battles of April, 1915, had made the Ypres salient

peculiarly Canada's. There thousands of the flower of her manhood had died; and the troops now entering the historical fields around St. Julien and Langemarck looked with eager eyes towards the Passchendaele ridges, where they hoped to get more than a bit of their own back; and their hope was to be realized in full measure.

CHAPTER V

BATTLE OF PASSCHENDAELE RIDGE

1. Storming Bellevue Spur

HILL 70 was now a tradition, and men's eyes were turned to Sallaumines, south-east of Lens, when a rumour came to Corps Headquarters at Camblain l'Abbé. From there it spread to divisions and from divisions to brigades until it reached the conquered heights and slopes of the firing line, where Canada around Lens was surely forcing the enemy back. It brought a grim, stern message of great adventure in known and terrible places. The corps was to move to Flanders with Passchendaele as its objective!

Before the middle of October, 1917, the 3rd and 4th Divisions were on the road. Through old, familiar places, infantry and artillery marched out of France into the grim Ypres salient. Men went with brave hearts and the curious exaltation that comes of action, even though it was known that of the many who went many would not return. For the roads that led through Poperinghe and Vlamertinghe and so on to Ypres had known the tramp of the 1st Division towards St. Julien, and the whole area spoke to Canada of Second Ypres, Festubert, Givenchy, Zillebeke, Sanctuary Wood, Observatory Ridge, Maple Copse, and many other bloody battles. Destruction brooded over the sinister land and sorrow haunted it. It was the grave-yard of an Empire. There Britain counted her dead; and there Australia and New Zealand, Canada and South Africa, had buried

thousands of their sons. There India had battled before the Dominions came. And through the Valley of the Shadow of Death where tragedy was relieved only by heroism, Canadian troops marched again until the 3rd Division was once more in battle line, with the 4th Division south of them. They relieved splendid soldiers of Australia, and while the relief was going on the corps moved its headquarters to Ten Elms, just outside of Poperinghe, and the 1st and 2nd Divisions began leaving the area around Vimy Ridge in their turn and marched north.

By October 20th, the 3rd and 4th Divisions were in the line. The 3rd, under Major-General Lipsett, had its headquarters along the Ypres Canal, and the 4th, under Major-General Watson, in the famous ramparts. The first attack was planned for the morning of October 26th. The days which preceded it were ones of ceaseless preparation. The salient was at its worst. To move off the duck-walks in the forward area was to trudge in mud; and the bottoms of the valleys, where the waters of the Ravebeek and little muddy streams made extensive areas almost impassable, were slimy morasses. No drainage could dry the front-line trenches. Men lived and ate and slept in mud and water and slime. Brigade Headquarters were located in old German pill-boxes, where a whole staff would be jammed into three or four little cells, living by candle-light, and hearing ever overhead the shriek of shells and the rumble of cannon. Battalion commands were sheltered in other concrete hovels. The men of the line lived in their soggy trenches and caves on the slopes of the hills, with a vision of "over the top" before them. It was a desperate vision. Bellevue Spur lay in the forefront of the prospective Canadian advance. To better appreciate what Canada was to do in the terrible days that lay ahead, it is well to remember the experiences of New Zealand and Australia in their assaults on Pass-

chendaele. Describing their attack on October 12th, Mr. Philip Gibbs wrote:

"But machine-gun fire never ceased from the higher ground, from tall masts of branchless trees, from shell craters beyond the reach of our men. . . . They were stuck in the swamps at Marsh Bottom . . . and in the bogs below Crest Farm. They plunged into these bogs, fiercely cursing them, struggling to get through them to the enemy, but the men could do nothing with their legs held fast in such slime, nothing but shout to comrades to drag them out. While they struggled German snipers shot at them with a cool aim, and the machine-gun bullets of the deadly barrage lashed across the shell craters.

"Australian troops on the right made good and reached the edge of the hummock called Crest Farm. Some of them swarmed up it and fought and killed the garrison there, but beyond was another knoll with machine gunners and riflemen, and as our men came up to the top of Crest Farm they were under close and deadly fire. They would have held their ground here if they could have been supported on the left, but the New Zealanders were having a terrible time in Marsh Bottom and Bellevue, and could not make much headway because of the deadly fire which came down from the spur on which Bellevue is perched. All this time it was raining hard, making the ground worse than before, and the wet mists deepened, preventing all visibility for our machines working with the guns. Orders were given not to continue the second stage of the attack, because the weather was too bad, and the Australians on the right centre withdrew their line in order not to have an exposed flank."

This and many other things Gibbs and other correspondents wrote, and their stories were of heroic men defeated by mud and marsh and slime and swept by merciless fire from the high lands of Bellevue, Crest Farm, and Passchendaele. And of all the outer de-

fences of Passchendaele, Bellevue Spur was the worst. These things the Canadians knew, and they knew, too, that only supreme effort could win success from the ordeal which lay ahead. So the preparations went forward apace. Every day saw horses and men straining with guns — guns that were dragged through mud to their hubs and anchored finally with their trails sunk deep in the sodden earth. At Zillebeke and on the Somme the Canadian artillery had done magnificent work — indeed, their record had been good from the first. Little was made public of their achievements in the early days of the war, but now that the conflict is ended stories of the heroic work of the guns at the Second Battle of Ypres are gradually reaching the world. But Passchendaele was dirty ground, dirtier even than the gun-shattered wastes of Picardy. There was no shelter. The sodden plains and slopes were dotted everywhere with guns of all calibres. Improvised breastworks of sand-bags gave protection against shell splinters, but the crews worked in the open and slept in hovels made of paralleled rows of bags, with gunny sacking for a door and tin for the other end and more tin for the roof. They were crazy, ramshackle structures that housed all manner of bugs and companionable but uninvited creatures, but still gave some shelter against the wind and the rain and the dreary cold of the autumn nights. Under such conditions, the Canadian gunners dragged their guns into flimsy positions, and began registering the area, sweeping enemy advance posts, forward and rear zones, concentration points, and lines of communication. It was their tradition that no shell that they could give would be lacking to support the men of the line when the day of attack came, and that tradition was to be powerfully maintained.

The Medical Services faced a problem unprecedented in their history. There were grave faces at Corps Headquarters when men discussed the evacua-

tion of the wounded. It seemed an almost impossible task. But Colonel Ross gave his assurance that it would be accomplished, and with that assurance many minds were relieved, for he was not given to failing. Duck-walks were laid over the long trails to the front areas, duck-walks that were soon fringed by shells and were repeatedly shattered by direct hits. The Canadian Red Cross Society, pioneer of its kind in the forward area, established its advanced base at Poperinghe, and perfected its communications from Boulogne. The Chaplain Services planned and established their priceless coffee stalls, and the Y.M.C.A. opened advanced posts.

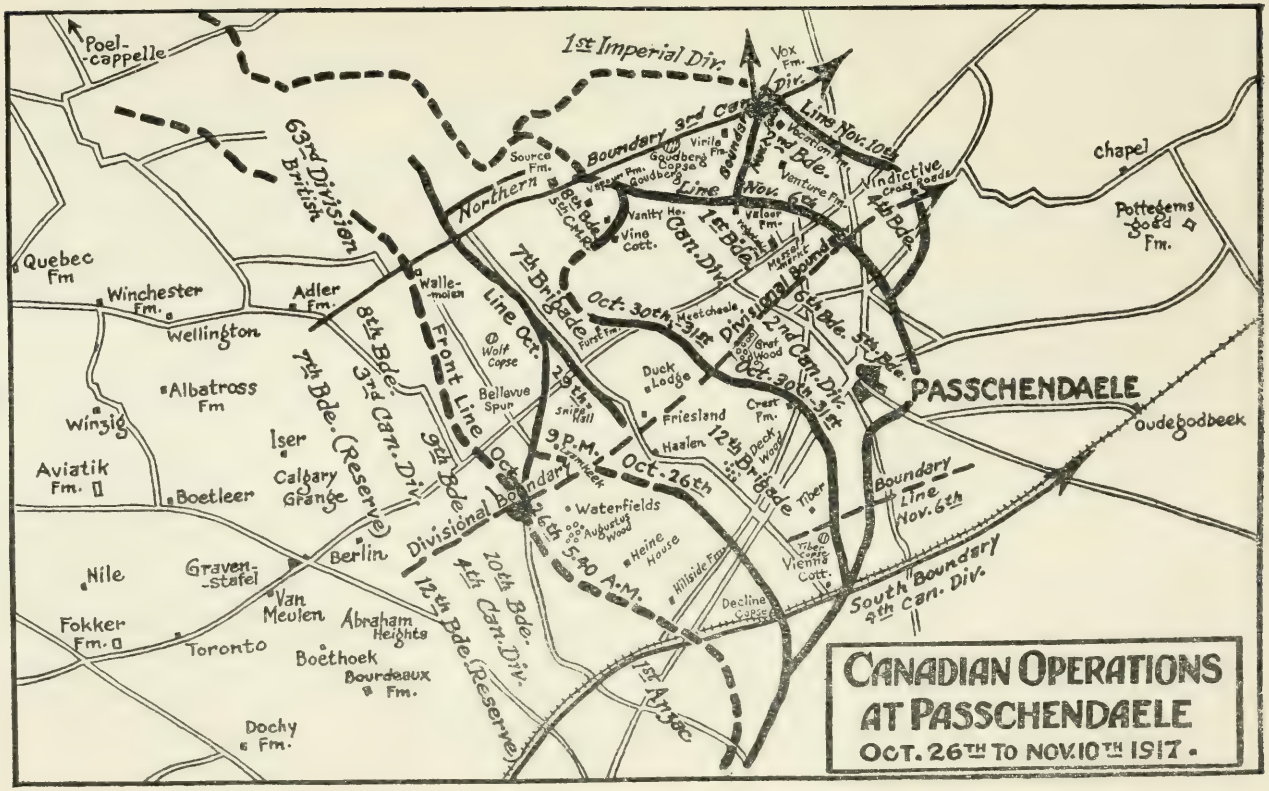
At Ten Elms the plan of attack was rapidly developing. "G" and "A" and "Q"[1] were straining over grave problems of order of battle, ammunition, reinforcements, and commissariat. The G.O.C.R.A. and his staff were busy with barrage maps and a thousand vital details. Intelligence was frantic for prisoners and all information that would indicate enemy strength, enemy positions, or enemy plans. By October 20th arrangements were so well advanced that the Corps Commander outlined the whole plan of attack with a quiet confidence in its success that, considering the obstacles to be overcome, was perhaps as striking a tribute to the corps as any appreciation that has ever been written. Operating with Imperial forces on the left flank and Australians and Imperials on the right, the Canadians in a series of three great attacks were to gain Passchendaele Ridge and take the village. The whole operation was to occupy about two weeks; and then the Canadians

[1] "G" — General Staff, in charge of operations.
"A" — Adjutant-General's Branch, in charge of reinforcements, casualties, promotions, appointments, honours and awards, leave, discipline, and other personal services.
"Q" — Quartermaster-General's Branch, charged with the general administration of supplies, including food, fuel, forage, and ammunition; also concerned with ordnance, veterinary service, baths, laundries, stores, etc.

were to return to their old positions in front of Lens. In the general strategy of British G.H.Q., the Canadians were to take an important part in what were to be the final attacks of the 1917 campaign and were designed to conclude the important series of British operations which had begun months before with the storming of the Messines-Wytschaete ridge and the ultimate purpose of which was to relieve the Ypres salient, close the door to Calais, and capture the dominating ridges from Passchendaele north, which would give command of the Roulers plain, establish an excellent jumping-off place for the 1918 campaign, and menace the whole enemy position in Flanders.

The operations began at 5.40 on the morning of October 26th, when the whole salient on a ten-mile front, from Houlthoust Forest to Gheluvelt, woke at zero hour to the noise of thousands of guns. French, Imperial, Canadian, and Australian troops waited in their trenches along the leagues of front while for two hours terrific bombardment continued, wiping out the enemy's trenches, demolishing his advanced positions, wrecking many of his strong points, sweeping his support areas, and disturbing his communications. From Abraham Heights the scene was an extraordinary one: at one moment the quiet of the dawn, disturbed only by the intermittent rumble of occasional cannon and the crackle of machine guns; at the next, a thousand fire-flashes lighting the greyness of the morning, the ground shaking with the thunder of the guns, and the air growing bitter with the acrid fumes of powder. German forward lines were marked by one long line of bursting shells, while our back areas were distinguished by the red bursts of flame from our advanced artillery positions to miles in the rear, where heavy howitzer batteries rained their great projectiles on enemy positions.

The Canadians attacked on a three-thousand yard front extending roughly from the Passchendaele-


Poel-cappelle
1st Imperial Div.
Vox Fm.
Dir.
Line Nov. 10th
2nd Bde.
Venture Fm.
Vindictive Cross Roads
4th Bde.
chapel
Pottegems Gard Fm.
63rd Division British
Boundary 3rd Can. Div.
Northern
Source Fm.
Goudberg Copse
Goudberg
Boundary Line Nov. 6th
8th Bde. 3rd Can. Div.
Vanity Ho.
Vine Cott.
1st Bde.
Can. Div.
Valour Fm.
Mental Trench
Quebec Fm
Winchester Fm.
Adler Fm.
Wellington
Wolf Copse
7th Brigade
Oct. 30th-31st
Divisional Boundary
6th Bde.
5th Bde.
PASSCHENDAELE
Albatross Fm
Bellevue Spur
Duck Lodge
Friesland
Crest Fm.
Haelen
Oct. 30th-31st
Winsig
Iser
Aviatik Fm.
Boetleer
Calgary Grange
7th Bde. (Reserve)
9th Bde.
Front Line Oct. 26th
9 P.M. Oct. 26th
12th Brigade
Deck Wood
Tiber
Boundary Line Nov. 6th
Oudegodbeek
Waterfields
Augustus Wood
Heine House
Hillside Fm.
Vienna Cott.
Nile
Graven-stafel
Berlin
Divisional Boundary
26th 5.40 A.M.
Van Meulen
Abraham Heights
Fokker Fm.
Toronto
Boethoek
Bourdeaux Fm.
10th Bde. 4th Can. Div.
12th Bde. (Reserve)
Decline Copse
South Boundary 4th Can. Div.
1st Anzac
Dochy Fm.
CANADIAN OPERATIONS AT PASSCHENDAELE
OCT. 26TH TO NOV. 10TH 1917.

Zonnebeke road to Wallemolen. They had as their objectives Hillside Farm, Heine House, Augustus Wood, Laamkeek, Bellevue Spur, Wolf Copse, and the higher land to the north-west. Over all this area, the gridiron barrage of our guns sought out the enemy. In some parts of our line his reply to our fire was immediate and heavy; but the powerful concentration of our shells continued until the German artillery was largely demoralized, and when the moment came for our advance the marked decrease of enemy gun-fire gave unmistakable signs of his disorganization. Then our men "went over." There have been few more dramatic moments in Canadian history. Our troops were advancing literally over the graves of their dead, and all Canada thrilled later to the news that after so many months men from the Dominion had won back from the Central Empires the only bit of Dominion trenches they had succeeded in holding in the war. For our battalions advanced over practically the very trenches that were held by Canada's veteran 1st Division on April 22nd, two and a half years before, when the Germans launched their deadly gas attack, captured St. Julien, and might have stormed through to the coast but for the desperately gallant fighting of Canada's untried troops.

On the right of the Canadian attack, the 10th Brigade advanced on a line roughly from Waterfields to the Passchendaele-Zonnebeke road. To the left, the 8th and 9th Brigades went forward against Laamkeek, Bellevue Spur, Wolf Copse, and the higher land to the north-west. The infantry went over the top in waist-deep mud, which an all-night drizzle had turned to little more than slime. Wallowing ahead with a spirit which nothing could daunt, they pressed forward victoriously on the right, winning their objectives after sharp fighting, and scoring signal successes which carried them to the dominating spur on the Passchendaele-Zonnebeke road overlooking Passchendaele

village itself. It was stern business, rendered more stern by the concentration of hostile machine-gun fire from Crest Farm and Deck Wood. But the attack was everywhere pressed home; indeed, our troops eventually pushed on to the southern corner of Deck Wood and obtained command over it, thus neutralizing the enemy machine-gun fire. Everywhere on the right the day was a triumphant one. On the extreme right flank our line was pushed forward to Decline Copse, and in the general attack we had taken Hillside Farm, Heine House, and Augustus Wood, and gone beyond our objectives to Deck Wood.

On the left there was grim and bitter fighting. Skirting Marsh Bottom and the waters of the Ravebeek, our troops went forward to the slopes of Bellevue under sweeping machine-gun fire. For fourteen hours there was hard and bitter fighting for the spur and for Laamkeek. But when it ended, the Canadians were victorious all along the line and in possession of all their objectives. The formidable Bellevue Spur was taken — that network of wire entanglements, redoubts, and pill-boxes; that veritable nest of machine guns, fortified by all the defensive contrivances that German ingenuity could invent to defend what they considered a vital point in the Flanders defences. The Bellevue positions were held by the 11th Bavarian Division, which included the 3rd and 22nd Bavarian Infantry Regiments. They believed their positions to be impregnable. They had been ordered to hold them at all costs. Captured documents and the information gained from prisoners also proved later that they had known beforehand that the Canadians had been moved up from Lens to take the position. Defences had been strengthened with the news. But their defence — and these troops showed none of the demoralization of the German artillery, but fought hard and well — was unavailing.

The 52nd Battalion of the 3rd Division, Manitoba

troops, had been selected to win the spur. On their right was the 43rd Battalion, Manitoba Highlanders, and on their left the 4th Canadian Mounted Rifles from Central Ontario. The initial attack against the spur was checked. A Company of the 52nd, under command of Captain C. P. J. O'Kelly, was called upon to fill the gap between the 43rd and the Canadian Mounted Rifles, B Company following in support. Officers and men covered themselves with glory and won imperishable renown for the regiment. To call back the barrage was to upset the whole artillery programme. It was not called back, but the companies, without direct support from the artillery, fought their way forward over a thousand yards of desperate territory, swept front and flank by machine-gun fire, and took the spur by storm.

Captain O'Kelly, who had already won the M.C., was awarded the V.C. for "most conspicuous bravery in an action in which he led his company with extraordinary skill and determination. After the original attack had failed and two companies of his unit had launched a new attack, Captain O'Kelly advanced his command over a thousand yards under heavy fire without any artillery barrage, took the enemy positions on the crest of the hill by storm, and then personally organized and led a series of attacks against pill-boxes, his company alone capturing six of them, with one hundred prisoners and ten machine guns. Later on in the afternoon, under the leadership of this gallant officer, his company repelled a strong counter-attack, taking more prisoners. Subsequently during the night, the company captured a hostile raiding party, consisting of one officer, ten men, and a machine gun. The whole of these achievements were chiefly due to the magnificent courage, daring, and ability of Captain O'Kelly."

The first of the attacks, which A Company repelled, came at four o'clock in the afternoon, when the Ger-

man Command sent two battalions against the tired but victorious Canadians on Bellevue Spur. The attacking force was swept away under a withering artillery and machine-gun fire and routed with heavy losses, leaving no fewer than sixty prisoners behind them. Three-quarters of an hour later, enemy infantry thrown against Decline Copse and our positions on the ridge dominating Passchendaele village were repulsed with severe losses. They came on again an hour later, only to meet with another vigorous reception, which effectively broke down the offensive. During the night the Germans again threw attacking forces against Bellevue Spur and Laamkeek, but only to admit final defeat; and dawn broke with the Canadians successful all along the line.

The first great task was done! But the twenty-four hours had been grim and costly, and men in that dawning looked back over the terrible land that they had won and marvelled; for it had been a battle even worse than those of the Somme. The very ground under their feet had menaced them. The yawning shell holes everywhere — filled with water that concealed their depth — were death-traps for the wounded and crippled who might slip into them with no comrade near to help. Indeed, there are stories of that dreadful day that are better not imagined and that will not bear the telling. It was a battle against enemy and elements, and not only the forward zone, but also the roads that ran from Ypres to Saint Jean and Potijze, Wieltje, Bridge House and Frost House, and so forward, were torn with shells and stained with blood before the day was old. For after the first attacks had gone forward the enemy began shelling the rear areas, endeavouring to cut off supports and disorganize communications. And down these roads the wounded went slowly in ambulances to casualty clearing stations or limped bravely along the planks, here and there helping or being helped by a German pris-

oner; while at the advanced dressing stations doctors and orderlies were attending to friend and enemy alike. The prisoners on the whole were well-built men of the physique of shock troops and all seemed well pleased to be out of the battle. They said they had been ordered to hold Bellevue at all costs, that our artillery fire had been overpowering, and that, forewarned of the Canadian attack, fresh forces, including the 111th Bavarian Division, had been hurried up to the Passchendaele front.

At Corps Headquarters there was a great and quiet satisfaction that the day had gone so well, that the links of the machinery had held true, that the first venture had been made so successfully. Every arm of the Service had distinguished itself, and many were the good words said of the Canadian Red Cross and the Chaplain Services, both of which had co-operated admirably with the C.A.M.C. in relieving the suffering and wounded men and had provided hot coffee, biscuits, cigarettes, and other comforts at forward stations and special stalls. So the Y.M.C.A. did its customary good work. And many a wounded man in transfer to the hospitals blessed these gentler services in their pain.

As there was quiet satisfaction with work well done at Canadian Corps Headquarters and throughout the Canadian ranks, so there was high praise from G.H.Q. Sir Douglas Haig, in a special message to General Plumer, commanding the Second Army, said: "The successes gained by your troops under such conditions are deserving of the highest praise. While all the troops did well and contributed materially to the results achieved, the performance of the 3rd Canadian Division in particular was remarkably fine. The ground gained is of high importance, and I congratulate you and all under you on the results of the great efforts made." The British commander-in-chief also called personally on Lieut.-General Currie to compli-

Canadian Official Photograph

A CANADIAN OFFICER HELPING TO BRING IN A WOUNDED PRIVATE

ment the troops on their magnificent achievements. General Plumer, commanding the Second Army, telegraphed: "I should like to express to you and ask you to convey to the divisional commanders of the 3rd and 4th Divisions my appreciation of the excellent work done by all ranks of their divisions yesterday. The recovery of the 3rd Division and their success after being checked at the outset was a very fine performance." General Horne, commanding the First Army, wired: "Well done 3rd and 4th Divisions." Warm and welcome congratulations were received from General Byng, commanding the Third Army, who sent General Currie his "very warmest congratulations to you and the Corps."

The British war correspondents, always generous in their appreciation of the overseas forces, wrote in the highest terms of the Canadian achievements. The London *Times'* correspondent described the capture of Bellevue Spur as a "very fine and gallant operation"; while the *Times* declared editorially that "the Canadians have never shown greater doggedness or determination than in this attack." Mr. Beach Thomas wrote in the *Daily Mail:* "The capture of Bellevue, on the spur that is one of the buttress stairways to Passchendaele, is one of the most glorious single feats of the war, and the tale of it should ring throughout the Empire with special resonance along the roads between Nova Scotia and British Columbia. Badajos and such fortresses were weak compared with such a position." Mr. Percival Phillips in the *Daily Express* said: "Canada will hear with pride of the part played by her troops in this important advance. Theirs is the greatest glory." Mr. Philip Gibbs wrote in the *Daily Chronicle:* "The most important position in the attack yesterday was given to the Canadians to carry, and the story of their capture of the Bellevue Spur is fine and thrilling as an act of persistent courage by bodies of men struggling against

great hardships and under great fire. Nothing that they did at Courcelette and Vimy and round about Lens was finer than the way in which on Friday they fought their way up the Bellevue Spur, were beaten back by an intensive destructive fire, and then, reorganizing, went back through the wounded and scaled the slope again and drove the German machine gunners out of their blockhouses." The tributes of the French press were equally striking. The correspondent of *Le Petit Journal* declared that at General Headquarters the Bellevue assault and capture was considered one of the best exploits of the whole British army. The correspondent of *Agence Havas,* writing from the front after the battle, *Le Petit Parisien, Le Matin,* and other French papers had equally warm words of praise.

2. Fighting towards Passchendaele

Night and day after the initial Canadian successes the salient was never silent. Time was marked by the rumble of guns and there was no rest. To those who fought towards Passchendaele it sometimes seemed that the British could never have enjoyed a mastery in the air and that they certainly did not do so then. The German fliers were very daring. Occasionally flights of fifteen and sixteen machines would fly low in broad daylight over the crowded roads and bomb and machine-gun infantry, artillery, and transport. The moonless nights were loud with the drone of enemy planes and splashed with the limited glare of searchlights. Exploding bombs were answered by the snarl of anti-aircraft guns, and hostile gas and incendiary shells added to the hideousness of the nights. Corps Headquarters, artillery lines, infantry encampments, — these had their share of the horrors; and it was not always realized that Allied airmen were nightly raising the same and even worse hell in enemy

territory. It was not that the mettle of our fliers was ever questioned. Their record on the Somme had amazed the world. Their quality had been proved too often before and after that bloody time to admit of any question, and in the grimness of the first Passchendaele battle one daring pilot, for instance, in an endeavour to distinguish the exact position of the forces contending for Bellevue Spur, had crossed and recrossed the battle-line. In the mists that hung over the heights he had flown at 800 feet, then 600, 400, and finally 150 feet, to secure his information. And he had flown twice over the spur at the lowest height, so low that he could plainly discern the Canadian uniforms and determine the extent of the advance. Then he was "winged" by hostile rifle fire and brought down, though fortunately within our own lines. All through the fighting of the 26th, indeed, magnificent support was rendered by the Air Force. But there were days when hostile air reconnaissance seemed to be carried out almost with impunity, and nights when the German planes were persistently active. At such times it was hard to remember our own air activity.

In the advanced areas, the days between the first and second battles were remarkable chiefly for artillery exchanges, and in the front line the battle hardly ever ceased. Subject to intense shell-fire, fighting machine guns, and waist-deep, slimy mud, the Canadians steadily strengthened their positions on the spur and the ridge. On Saturday night, the 27th, the Germans gained a foothold on our right flank at Decline Copse, but our infantry met them with bayonet and bomb and drove them back with heavy casualties. Again, about midnight on the 28th, the enemy made another strong local attack against our positions in and about Decline Copse. Our infantry were forced to fall back for a short distance, but they were promptly reinforced by troops coming up to relieve them. The two parties advanced and, after heavy fight-

ing, regained the copse. On the high ground towards Passchendaele our line was also advanced, and enemy attempts to weaken the right flank, though supported by successive and intensive artillery bombardments, proved unavailing.

By October 29th our foremost position was within a thousand yards of Passchendaele village itself, and on the left, where the Bellevue Spur ran into the muddy valley of the Ravebeek, our infantry had made slow, stubborn progress through almost impassable country. As the result of three days' fighting, the Canadians had captured sixteen officers and four hundred and seventy other ranks and they were masters of the lower slopes to Passchendaele, having before them strong enemy positions at Crest Farm on the right and Meetcheele on the left, with Duck Lodge, Haalen, Haalen Farm, Friesland, and Snipe Hall in the valley. For forty-eight hours our guns had been maintaining persistent fire on Passchendaele, Crest Farm, Haalen Copse, and selected strong points. The effectiveness of our fire was admitted by prisoners, who declared that our artillery "destroyed everything visible." They delighted everybody with tributes to the excellence of our airmen, who, in the language of one enemy report, "dominate our zone of defence and report everything to their artillery." Our planes were particularly active around Passchendaele, machine-gunning the enemy's troops in their defensive positions and bombing the village.

Such was the situation on the morning of October 30th, when, scrambling over the hastily constructed trenches that marked their advanced lines, the Canadians resumed their offensive against the outlying defences of Passchendaele. At 5.50 a.m. our artillery, combining with that of the French and Imperial forces on our right and left, roared its challenge from Houlthoust Wood in the north to Gheluvelt in the south. Once more the ten-mile front was one flaming stretch

of flashing guns and bursting shells, the Canadians in the centre pouring all manner of shells, including gas, into the enemy's lines, while our counter-battery guns sought out his artillery positions and strong points. Six Canadian provinces were represented in that advance, regiments from Nova Scotia, Manitoba, British Columbia, Eastern Ontario, Quebec, and Saskatchewan attacking along a front similar in length to that of October 26th. The 3rd Division again held the left, with the 7th and 8th Brigades facing Friesland, Duck Lodge, Meetcheele, Vanity House, Vapour Farm, and Source Farm. The 4th Division was on the right, with the 12th Brigade fronting Haalen, Haalen Copse, Crest Farm, Tiber, Tiber Copse, and Vienna Cottage. The First Anzac Corps was on the Canadian right and the 63rd (Imperial) Division on the left as in the former battle. Meetcheele and Crest Farm were the key points of the enemy position, the gates that guarded the inner Passchendaele defences. As such they were garrisoned, strongly fortified by machine guns, and protected by pill-boxes. Meetcheele, the northern gate, lay on the Bellevue Spur, and it was doubly strong, for just seventy-five yards behind it was another strong point, making a formidable entrance even more formidable. Crest Farm was situated on a shoulder of Passchendaele Ridge and overlooked the village.

Conditions were frightful for the attack. The dry weather of the day before had given place to an intermittent drizzle in the evening, changing to clear and cold at night, with a biting wind. The drizzle had added a deluge to an already deluged land. No wind could dry it, and the cold pierced everything, so that men's hands were numb on their rifles. Cold and soaking wet, our infantry skirted the quagmire of the Ravebeek and struggled up towards the higher levels over ground that was little more than a constant succession of shell holes from our own and enemy gun-fire

of preceding days and the constant shelling of years. Slipping, stumbling, struggling over the treacherous land, pulling one another out of swamp and morass, subjected at every exposed point to machine-gun fire, constantly shelled, they stubbornly went forward. True, the ground was not so low as that which had to be covered on the 26th, but in the four days since the first Canadian attack the enemy had had precious time in which to strengthen his defences, and it was known from examination of prisoners that he had made the best possible use of his time.

During the same period, miracles had been performed by our artillery. Straining men and straining teams had worked incessantly, advancing artillery positions. Guns, great and small, had been hitched to powerful tanks or to multiple teams and been literally forced through the clinging mud. Men, having sweated and wrestled with their guns all day, had slept beside them at night without shelter and had risen at daybreak from their muddy beds to strain again with their mighty charges. But the artillery had been moved up, and, in these hours of battle, artillery and infantry worked with that precision which is the result of complete understanding and exhaustive attention to detail. So with the Medical Services. Evacuating the wounded was a tremendous task on the first "push." With the subsequent advances, the task had been rendered more difficult, stretcher-bearers having thousands of yards to struggle before they could reach the advanced dressing stations. But the greater the task, the harder the men worked to overcome it, and every detail of evacuation had been perfected as far as was humanly possible. So again with the Red Cross and Chaplain Services. Their coffee posts and refreshment stands had gone farther forward in the advanced area.

All services and auxiliary services of the Canadian Corps had done the best that men could do to facili-

Canadian Official Photograph

PRISONERS IN GAS MASKS BRINGING IN WOUNDED

tate the advance, and that advance went doggedly forward. Such was the vigour of the attack that by 6.35 a.m. ground observers reported that the 4th Division had taken Crest Farm, and shortly afterwards it was known that this division had captured all its objectives. The capture of Crest Farm in such a short time was a brilliant performance. The advance to it was precarious—a swamp on one side and a wood on the other, leaving only a narrow gap swept by hostile guns. With surprisingly slight casualties, the attacking force stormed the gap and reached the Hun front line, which had been pounded to pieces by our barrage. Pushing forward to Crest Farm itself, the division was subjected to heavy shelling, but the enemy infantry were dazed by our bombardment and no protracted resistance was encountered.

On the left the success was equally brilliant. On the extreme flank the 5th Canadian Mounted Rifles, literally wading through swamp, went forward to Source and Vapour Farms and even secured a footing in Vanity House. Such was the terrain on their left flank that the 63rd Imperials could not get up, and they fought all through the day with one flank exposed and swamp about them on every side. They were literally isolated. They were subjected to attack and constant bombardment, but at 6 p.m. those that were left were hanging grimly on to Source and Vapour Farms, having withdrawn their outposts only from Vanity House. Relief came with the night. The attack on Meetcheele added further stirring pages to the history of the Princess Patricia's Canadian Light Infantry. A thousand yards of rising land, a succession of shell holes and stagnant water, had to be crossed. To their right was marsh. They skirted the marsh and struggled up the heights. They paid for every yard of their advance, for the enemy fought well, defending every fortified shell hole. Raked by machine-gun and artillery fire, with comrades falling

around them and no shelter save that afforded by the dip of occasional hollows, they pressed forward to their objective. They captured it — what was left of them. And seventy-five yards away they were confronted by another enemy stronghold, only less powerful.

Such was the general position at eight o'clock in the morning. Our wounded men were painfully making their way to the advanced dressing stations or being carried there by stretcher-bearers. Exhausted, covered with mud, wet, cold, miserable, success cheered their suffering, and they told heroic stories of men, advancing under heavy enemy shell-fire or facing a hail of deadly machine-gun bullets, who stopped to bandage a comrade's wounds or pull mired men out of treacherous, water-filled shell holes. They reported that while enemy artillery fire was heavy over our whole area, it was erratic, and that our artillery seemed to dominate the German guns. Indeed, even as they talked, the enemy's fire was weakening, giving proof of the number of his batteries put out of action and the increasing demoralization of his artillery. For he had need to employ all his metal to the utmost. His infantry was counter-attacking. In the next five hours he tried again and again to dislodge the Canadians. One counter-attack after another was made in vain attempts to force us out of our treasured positions. The most formidable troops in the Central Empires were rushed into the line, but the Canadians, meeting them hand to hand, gained victory after victory and sent them reeling back with heavy losses. No less than five counter-attacks were made before three o'clock in the afternoon. The first, at eight o'clock, was directed against Crest Farm. It was caught by our artillery and swept by machine-gun fire from weapons which our men had captured with the position. The attack was dispersed and the enemy retired in disorder. Two hours later two attacks

were launched, one against Meetcheele and the other against the extreme left flank of the Canadian position. The outposts of the 5th Canadian Mounted Rifles retired from Vanity House, but the general attempt failed completely. In three-quarters of an hour the Germans came on again, this time against Meetcheele and the Canadian centre. They retired in disorder under our concentrated artillery and machine-gun fire. Forces thrown against our right on the Ypres-Roulers railway fared no better.

From now on the history of Passchendaele was one of almost continuous fighting. There were few incidents to relieve the bloody grimness of the conflict. Here and there on the broken roads wounded conquerors and conquered might be seen helping one another back to dressing stations; and opposite Meetcheele, where the front lines were seventy-five yards apart after the fighting of the 30th, Canadians and Germans, under the Red Cross, buried their dead and evacuated their wounded. Men were human for a moment, after many hours of desperate fighting. In one spot a German rifle, bayonet-deep in mud, with a German hat on top, marked where an enemy, bending over one of our wounded, bandaged his wounds, and over the area stretcher-bearers of both forces passed and repassed one another in the mud and slime, ministering to the suffering. But no such amenities characterized the general story. Driven from his positions at Bellevue and on the Passchendaele Spur at the first Canadian attack, smashed out of Meetcheele and Crest Farm at the second, the enemy fought desperately to retrieve his losses or at least secure his positions at Passchendaele. With his faith in the protective value of the swamps and marshes which guarded his advanced areas broken, his best infantry routed in hand-to-hand fighting, the enemy strove by throwing in new divisions and rushing up guns to strengthen his defences in every possible manner. Time after time in

the next five days he counter-attacked. His guns were never silent. He raked our front lines with machine-gun fire, hailed them with shrapnel, and pounded them with one barrage after another. He repeatedly bombarded our whole forward area and combed the salient for our guns. Time after time he gassed our advanced, support, and rear positions. All these things he did and did often, but at every turn the Canadians beat him. Replying to his barrages, our guns more than equalled his. Meeting his counter-attacks, our troops overcame his infantry with bayonets and machine guns and drove them back with heavy losses, while our artillery constantly shelled them, giving our infantry magnificent support.

Having seen no fewer than five of his counter-attacks defeated by three o'clock on the afternoon of the 30th, the German Command, exhausted for the moment, took counsel and gave breathing space to our men, who toiled unceasingly to consolidate their positions and strengthen their line. During the night of the 30th–31st the situation on the extreme left of the corps front was improved and touch was established with the 63rd (Imperial) Division. At about 3.20 a.m., on the 31st, a strong enemy party attacked across the low ground south-east of Graf Wood. Their progress was slow, owing to the wet ground, and as soon as they were observed our Lewis guns opened fire. The Germans ran for cover, so badly demoralized that when our guns ceased the German officers, unable to rally the men, ran back to their own line, and the remainder of the party surrendered. It was significant of the desperate temper of the German Command that the German artillery was turned on its own men when they gave signs of surrendering. Again, at 4 a.m. an S.O.S. was put up on the left of the 4th Canadian Division line. It was promptly acknowledged by the concentrated fire of our artillery, and no attack developed. During the night, patrols of the 3rd Division found

Furst Farm unoccupied, and the 4th Division threw patrols into Passchendaele itself.

After such early morning activity the 31st passed quietly. There was little change on November 1st; at least the infantry that night rejoiced in a day of comparative quiet. They needed what rest they could get, for at 1.15 a.m. on November 2nd two parties of the 1st Canadian Mounted Rifles attacked Vanity House and Vine Cottage. Harassing artillery fire preceded the operation. Then the parties advanced under cover of machine guns. The pill-box at Vine Cottage was rushed, and our men got into it, but while they were dealing with the garrison they were strongly counter-attacked. Owing to the great superiority of numbers which the enemy possessed, and on account of heavy machine-gun fire against their right flank, our men were driven back to Vanity House, which the other party had stormed. Both parties remained in Vanity House and consolidated the position. A local attack against Graf Wood was successful in its initial stages; but the enemy counter-attacked with surprising quickness and in significant strength. The reason was clear at 5 a.m., when the Germans attacked along the whole Canadian front from near the Ypres-Roulers railway to Crest Farm, Meetcheele, and beyond Woodland Copse. Our patrols, very alert after the experience at Graf Wood, had discovered the enemy assembling, and before he launched his intensive two-minute artillery barrage our batteries, heavy and light, from the forward areas to miles behind the line, poured everything they possessed in the way of shells into the German assembly areas, inflicting even heavier losses on his supporting battalions than on his front-line troops. Despite our artillery concentration, the Germans pushed forward their attack. Under the hail of shells from his barrage which swept our own front lines, our infantry poured Lewis and rifle bullets into his attacking parties. So confused was the enemy at the

overwhelming nature of his reception that his whole extensive plan of attack broke down after short but severe fighting. At Crest Farm some hostile parties succeeded in entering our positions, but they were driven out in disorder in a counter-attack in which we took numerous prisoners. Our own losses in the whole fighting were heavy; but our stretcher-bearers reported the ground covered with enemy dead, and prisoners confirmed the evidence of severe German casualties.

There was little rest for the enemy for the remainder of that day, and none during the night, for at 10 p.m. our guns opened up in a five-hour bombardment. For fourteen miles behind our front line the ground trembled from the intensity of our incessant fire, and the sky was brightened with the glare. It was a wonderful artillery performance, and it was carried out by men who had endured the seemingly impossible for days and nights of almost unceasing artillery activity; men who had stood by their guns hour after hour, though gassed and shelled by the enemy, and whose occasional sleep had been broken repeatedly by messages to support the infantry or to concentrate upon some special objective. There is this relief for the infantry in battle, that they have their turn in the line, and if they live they have rest after their work is done. But the gunners at Passchendaele fought without relief from the beginning of the corps' operations until the end. They were still fighting when the infantry of the 3rd and 4th Divisions began to give over to the 1st and 2nd.

The work of the retiring divisions in the salient was finely and finally done. Never again were they to battle over that historic territory. Never had they battled more gloriously. Back from Passchendaele the battered battalions marched — battered battalions whose ranks were sadly thinned and who left behind them in named and nameless graves many of their best

and bravest. They marched to the music of their bands. Some of them were wounded, all of them were in ragged, mud-stained khaki. There was little of mirth in their stern faces and tired eyes. Men did not laugh overmuch in those days; but their steps were firm and their heads were high, and there was that in their bearing which told of work well done, and the cheers which they received were as unstinted as the praise.

3. The Capture of Passchendaele

The 3rd and 4th Divisions had written their part of "the glory that is Passchendaele." Now the 1st and 2nd Divisions were to complete the writing. The inner defences to the village had been stormed, but the village and Mosselmarkt had to be taken before there could be security on the ridge, and the German High Command was desperately determined that no such disaster should meet their arms. It had ordered that the Passchendaele Ridge be held or, if lost, recaptured at all costs, and the ridge was all but lost with the Canadians on the high levels of Bellevue Spur and at Crest Farm. Hindenburg was soon to learn that the Canadian Corps was not to be denied. But the enemy's confidence was high, despite his lessons of the previous weeks. Additional guns and troops had been rushed to the defence of the threatened positions, and machine guns and strong points had been added to the formidable defences of the village, Mosselmarkt, and the whole inner Passchendaele line.

The confidence was short-lived. At 6 a.m. on the 6th of November the Allies again advanced on their ten-mile front. There was no prolonged artillery bombardment. Our guns, which had been hammering the enemy steadily for forty-eight hours, spoke suddenly and all together for two minutes. With that terrific concentration of shell-fire, the infantry attack was

launched; Canadian troops from Manitoba, Saskatchewan, Alberta, and Eastern and Western Ontario went over the top on a front narrower than that of the previous Canadian attacks. On the left the British line had been extended, and the 1st (Imperial) Division had Goudberg Copse, Goudberg, and Virile Farm before them. So on the right the Canadian line had been shortened. On their narrowed front the troops from the Dominion advanced from right to left as follows: The 6th Brigade of the 2nd Division attacked from near Grun on the extreme right flank to Graf Wood, having Passchendaele village as their chief objective. Mosselmarkt, Graf, Vegetable Farm, and Valour Farm, strongly fortified positions, faced the 1st and 2nd Battalions of the 1st Division.

On the extreme left of the attack lay Vine Cottage, and here was written one of the lesser epics of the war in the salient. It was cut off by marsh from the rest of the attacking forces; it imperilled the advance, and its capture was of great moment. The night before the general attack, a company and a half of Canadians were sent to seize and hold it. For hours there was no news of the gallant little band. Then came scattered reports of desperate fighting by men isolated from their comrades and without either reinforcements or supplies. The reports proved true. The German garrison fought grimly and only surrendered after their position had been carried with the bayonet. But carried it was, and the whole Canadian Corps rejoiced in the valour of the few that captured it.

Meanwhile the main attack had gone forward at 6.2 a.m. against the front that Hindenburg had ordered held at all costs. Every possible preparation had been made for the attack. Railway troops had worked unceasingly, pushing forward the light tracks that carried the narrow-gauge lines up past Wieltje. Plank roads had been repaired and extended. Many hundreds of yards of duck-boards had been added to the straggling

shell-pocked trails that led to the forward line. For four days our heavy and light artillery had been pouring shells into the enemy lines. By night and by day, through mud and slime, guns of all calibres had been slowly advanced to new positions. Fresh ammunition dumps had been established; and when the barrage thundered its challenge, confident infantry went forward under the protection of a bombardment that literally blasted the enemy out of many of his strong points. For once fair weather prevailed, and at least on the higher levels men could advance and fight without the formidable handicap of clinging mud to halt their steps and exhaust their strength.

Fighting the enemy artillery and machine guns was the most trying ordeal. German artillery had been concentrated on the ridge and the bombardment was terrific. But our men were not to be stopped. They followed our barrage so closely that in many instances they were upon the enemy before he had time to recover from the stunning effects of our artillery fire. It was largely short, sharp work. The 6th Brigade stormed the village, the 28th Battalion operating on the extreme left of the brigade flank, with the 31st in the centre and the 27th on the right. The ground which lay between the assembly trenches and the higher levels was swampy. In places the storming parties moved forward through knee-deep morass. They were subjected to shell and machine-gun fire and received fusilades again and again from hostile aeroplanes. Concrete pill-boxes opposed the advance and more than one was circled with dead and wounded before it was finally captured. But such was the impetuosity of the attack that by 7.40 a.m. the 28th Battalion had reached its objective, the 27th was consolidating a new front line on the further slope of the ridge looking out upon the Roulers plain, and the attacking waves of the 31st had made triumphant progress.

Passchendaele was a mass of battered masonry and

broken walls when the Canadians entered it. With bomb and bayonet they cleared the deep, fortified cellars. Desperate resistance had been anticipated at the brewery, with its vaulted concrete cellars; at the windmill, with its three-foot-thick concrete walls; at the convent, church, and school; but only scattered opposition was offered. Generally the Germans had little stomach for hand-to-hand fighting. Our shell-fire had been so terrific, our advance so rapid, that the enemy were dazed and broken and ready to surrender.

On the Canadians' left, where the 1st and 2nd Battalions of the 1st Brigade were operating, there was heavy fighting. The enemy's strong point, seventy-five yards in front of Meetcheele, fell with only slight resistance where a determined stand had been anticipated; but at Mosselmarkt there was sharp fighting, and the Canadians had to rush the position with bombs and bayonets before they could break down the defence. Here the Germans fought well, the temper of the garrison being illustrated in the action of one of the officers, who, when he saw his men surrendering and knew the position to be hopeless, held a bomb in his hand until the explosion blew him to bits. As early as 7.20, Vegetable Farm was in our possession and men's thoughts were centred on Vine Cottage, the only place still in doubt. The success of the Canadians there has already been told. Altogether the morning had brought victory everywhere. Much of the signal triumph achieved was directly due to our artillery: prisoner after prisoner testified to its deadly character. Our barrage was so heavy and well directed that the 11th T. M. Company of the 11th Division, for instance, which went to relieve one garrison, found the position demolished by shell-fire, and the T. M. Company, which was to have met our advance with a withering fire, never came into action. They were driven underground by our shells and captured in

their concrete dug-out. Every member of the 2nd Company, 51st I.R., of the same division, which was in the front line, was reported either killed, wounded, or a prisoner, those who tried to run from our infantry being caught in our barrage. In the diary of a captured officer of the 465th I.R. was found the significant entry: "We are in Zilverberg for the 5th day now, as a counter-attack division. The artillery fire and the mud are frightful, one loses one's boots even, one can hardly move. I pray to God I may be spared." In the case of one machine-gun company a prisoner declared: "The Canadians came over practically with their barrage and attacked so suddenly we had no opportunity to use our guns." Great admiration was expressed for the physique and fighting qualities of our men, one captured German commander declaring that with such troops he could "go anywhere and do anything."

Prisoner after prisoner confirmed the report that Passchendaele had been ordered held at all costs. Indeed, the determination of the German High Command to prevent our domination of the ridge and Roulers plain was apparent as soon as our initial successes had been achieved. That such successes were achieved is all the more remarkable in view of the fact that there was much evidence that the enemy had been warned of a probable attack. The 38th Fusiliers Regiment received a message about 5 a.m. on the 6th that an attack would likely take place, and its supporting company was sent into the line while its 3rd Battalion was held to counter-attack. The regiment suffered "the heaviest losses"; a battalion commander and four company officers were killed or captured; and when the 3rd Battalion of the regiment counter-attacked about 7 a.m., it was cut to pieces going through our barrage. So enormous were the losses that the battalion was ordered to retire before being directly engaged; but less than half of those

who attempted to retreat were able to get any distance under the concentrated fire of our machine guns. At 8.15 a.m. another counter-attack was launched, a force about one battalion strong being sent against our positions to the north of Passchendaele. The attack was dispersed by our artillery, assisted by the guns of the Australians on our right; and three further enemy attempts to assemble in the neighbourhood of Vindictive Cross-roads for counter-attacks were broken down with heavy casualties. In all these, the Australian artillery helped materially, and their machine gunners did valuable service in keeping down hostile flanking fire from Keiberg Spur.

By noon the Germans had evidently accepted defeat—temporarily at least. No further offensive movements were launched during that day, and the whole of November 7th passed without infantry action. Our guns, of course, were busy. Indeed, they had never been idle since the blasting barrage that heralded the first attack of October 26th. It is hard to appreciate just what the artillery did, but gunners will understand the significant statement that during the Passchendaele operations the Canadian artillery laid down an average of three barrages every twenty-four hours.

4. The Conquering Forces

At the risk of repetition, some review of the work of various services may be permitted. Canada had now done the greater part of the task it had set out to do, and the enemy in front of the corps had been forced into the low levels of the Roulers plain while the Maple Leaf dominated the ridge. During the Second Battle of Ypres, Canadian prisoners, suffering from all manner of wounds, and in agony from poison gas, had been huddled into Passchendaele village, and from there had gone east to prison camps and deliberate

neglect and brutality. Now Canada held the village and our guns were dotted over the land that the Germans had taken from the Dominion in that April of two years before. There was reason for rejoicing in the Canadian Corps, and here and there war-worn veterans would steal away from the guns or the reserve lines and, visiting old familiar places, would talk those April days over again and locate battery and battalion positions and tell how Canada fought the fight and barred the road against overwhelming odds. And often men stole away alone to some quiet grave and stood bare-headed, in silent tribute to some dear friend; and one likes to think that the dead understood and were comforted, and knew that faith had not been broken in Flanders' Fields, and so knowing slept in peace, waiting for another call that would not be of war.

Canada had indeed kept faith, and every arm of the Service had played its part, from the salvage companies, whose signs to "bring back something and dump it here" decorated roads and duck-walks, to the infantry of the line, whose newly dug graves marked the advance. The Chaplain Services sent their men far forward to the firing trenches to comfort those who were to attack, those who lay wounded, and those who would not recover. They read the burial service beside lonely pill-boxes over bodies whose shrouds were army blankets and whose requiem was the thunder of guns. They brought rest and refreshment with many a coffee-stall and they did man's and God's work quietly and nobly, with great understanding and sympathy. So with the Canadian Red Cross. The system of service in the forward zone developed at Vimy was perfected in the salient until the society won the thanks of the whole combatant forces. And the thanks that it won were for service rendered, and for comforts that were only less than necessities and that were made possible by the contributions in money

and in kind from Canadian men and women and boys and girls at home — from the cities and towns and villages and scattered communities all over the Dominion. Through the agency of the Red Cross, the great organized campaigns for funds, the school collections, the five o'clock tea and bridge donations, the sewing bees in the concessions, brought ease to the suffering and helped to relieve agony. The money given, the socks knitted, the mufflers and cigarettes and chocolates, and other comforts that were part of the "bit" of Canada at home, reached directly the man who went over the top and came back with his wounds, the gunner who fell beside his gun, the troops that worked night and day under shell-fire in the muddy wastes behind the line.

Dry socks, a hot drink, a piece of chocolate, and the soothing cigarette were the first immediate comforts for the wounded. Exhausted men, sorely hurt, chilled through from long hours of exposure, wet to the skin from lying in the mud, took these things after they had received their first dressing and went on their way helped in body and mind. Every day the advanced representative of the Red Cross called upon the Medical Services of the divisions in action, asking what they wanted beyond the necessities supplied to them. Every day demands were made upon him. Daily he met the demands. The Red Cross was working in the interests of the actual fighting men. If comforts were not to be had at the base, urgent application was made to the Australian or British Red Cross. They did not fail in emergency — great as were their own demands. Cigarettes, always in request, threatened to run out before one attack. A hundred thousand were ordered from the base at Boulogne and delivered in time. The next day another hundred thousand were ordered. They were forthcoming. No wounded man went without his cigarettes — cigarettes that were nothing less than a medicine to those who

had gone through the hell of an attack; a perfect godsend to men with jagged nerves and suffering bodies.

These comforts were the outward expression to the wounded of the work of the Red Cross. With the Medical Services that work found more extensive expression in the "Medical Officer's parcel" supplied by the Red Cross to every doctor in the regimental aid posts. The parcel was suggested by the advanced representative of the society when the Red Cross undertook its activities in the battle area. The suggestion was submitted to the Divisional Medical Services. Conferences were called of brigade and battalion M.O.'s. The result was the "parcel" with the following contents: 1 saucepan, 1 pair of scissors, 1 Tommy Cooker, 1 Tommy Cooker refill, 300 cigarettes, 2 tins of cocoa and milk, 2 tins of coffee and milk, 1 box of chewing-gum, 4 candles, 24 safety-pins, 1 dozen boxes of matches, 3 tins of chicken essence, 3 tins of beef essence, 12 tubes of hypodermic units, 2 tins of insect powder, 6 tins of soup, 3 pounds of chocolate, 1 feeding cup, 24 utensil bags. Such was the "M.O.'s parcel." Contributions to the Red Cross made it possible, and the advent of the Red Cross into the battle area made it accessible. It brought light to regimental aid posts in gloomy pill-boxes and dug-outs all through the Passchendaele battles. It helped to warm and feed and comfort the wounded. And its contents were supplied from the base stores at Boulogne to the advanced stores at Poperinghe, and so on up the line by drivers of Red Cross trucks, who sometimes made three and four trips a day from the Channel to the shell-torn plank roads that marked the end of wheeled traffic at advanced dressing stations.

The Medical Services praised the Red Cross and everybody praised the Medical Services. Their work at the Second Battle of Ypres had become a tradition; that tradition had been maintained through years of fighting; but never did the C.A.M.C. work more

heroically, more doggedly, more successfully than during the Passchendaele operations. They had achieved a wonder of evacuation during the Vimy battles. After one hard engagement, the battle-ground was reported cleared of our dead and wounded by five o'clock in the afternoon. But there the light railways did marvels to assist. There was no such assistance in the bloody beyond of the grim salient that grew day by day towards Passchendaele Ridge. The medical history of these October and November struggles is one of mud and slime, of paths winding between shell holes, of narrow board-walks paid for in blood, of dressing stations in scattered dug-outs or captured enemy pill-boxes, — some of them with the dead of yesterday still waiting for burial, — of stretcher-bearers and ambulance drivers and doctors who toiled night and day to achieve what history records as the Passchendaele triumphs of evacuation. Doctors died at the doors of their "hospitals," tending the wounded. Others saw their pill-boxes swept by enemy shell that exploded almost in the very entrances and deafened and dazed the occupants with the concussion. Stretcher-bearers, six to a stretcher, toiled down muddy paths and up board-walks for five and six thousand yards under shell-fire, where a misstep might mean a muddy death. Those who carried the wounded often became wounded themselves before they reached the advanced dressing stations. There the ambulances came to help. Day after day, night after night, ambulance drivers cautiously drove their loads of suffering humanity along roads that were often broken with shell-fire; often marked with the dead bodies of horses and men — always dangerous. More than one ambulance sustained a direct hit. And back at the main dressing stations, doctors and men laboured hour after hour to ease the pain of gallant men and help them back to life. Delicate operations were performed under conditions which seemed to

preclude even the suggestion of an operation — for in regimental aid posts and advanced or main dressing stations, work was done by lamp- or lantern-light or in the uncertain, fitful glare of candles. This was the heroic work of the C.A.M.C. There was another side, less spectacular but infinitely valuable — the side that dealt with prevention of trench feet, that looked after inoculation, sanitation, chlorination, and prevention of disease. There was the work of the Dental Service — a work so well done that for over a year and a half it had not been necessary to send a case outside of the corps for treatment, and this despite the fact that dental officers worked under unprecedented conditions and with the scantiest of equipment. In everything the C.A.M.C. did its share and did it gloriously. From the brains which directed it to the stretcher-bearers, it was a worthy companion of the men in the trenches and the men with the guns.

It is more difficult to deal with the work of "G," "A," and "Q," and of Intelligence. The first two are inarticulate by tradition and the last is secretive by profession. They win or lose battles, and the winning and losing is their test. By that test their success was complete. "G" had all the tremendous problems of planning battles, of detailing myriad operations in which unit must reinforce unit, advance conform with advance, supports and reserves be all ready in the order of their going. It had to move at least two divisions of men and so anticipate circumstances that such moves should be made without fault and without confusion. It had to replace division with division, to negotiate reliefs between brigade and brigade, and between battalion and battalion. The supreme obligation upon "A" during the period of battle activity was the provision of reinforcements. And it was the business of "Q" to feed these men and ensure the shipment of food, forage, and fuel from the base; to provide for distribution to divisions, to brigades, to bat-

talions, and to batteries. It was a business of feeding a city of 75,000 or 100,000 men as circumstances might dictate; but a city that was never still, whose population did not even move as one body, but whose people were scattered in billets and camps and dug-outs and wastes and mud hovels and trenches, with only limited roads of communication at best, and often without any. This population had not only to be fed, but clothed and equipped. The romance of "A" is in the firing line. There is a romance of "Q," a romance not to be found in returns and indents and all the paraphernalia of "business," but in the sand-bag and petrol tin. They went up the line as ordinary commodities. There they were transformed. Aladdin had his lamp, but it is doubtful if, in all the thousand nights and a night, Shahrazad ever told of more miraculous things than those done by riflemen and gunners with petrol tins and sand-bags. Kipling has written of "her Jollies, Her Majesty's Jollies" that you could leave them at night on a bald man's head to paddle their own canoe. You could turn Tommy into the wet and misery and slime of Flanders mud with a petrol tin and a sand-bag and he could build him a house and a kitchen range, and he did so build. He made of that petrol tin — some four inches wide, some eight inches long, and some ten inches deep, with cubic contents about 320 — a coffee-pot or a water-jug, a stove or a stove pipe, a bath tub, a water tank, or a strong box. He concocted awesome "firing-line cocktails" of stagnant pool water, heavily chlorinated and flavoured with petrol. These things he did and others equally astounding, and some day men will write songs about that petrol tin just as they will write them about the sand-bag, for it is a first cousin and had manifold uses. It was a most convenient "carry-all." It made a splendid overshoe, keeping off the worst of the muck. It was filled with mud and used as a pillow. It was employed as a hat, a pair of gloves,

a knapsack, or a boot-bag. Many of them together made a house, a mattress, a barricade, a table, a chair. It was used as a "black-jack," a duster, and a suit-case. In fact, the story of the petrol tin and the sand-bag was the story of a thousand tales and a tale. And if the story is suggested here in the midst of so much that was terrible, it is because there was little to smile at and much need of mirth, and sand-bag and tin were useful and happy brothers.

As the story of "A" is largely that of the men of the line, so the story of the artillery is largely that of the guns, and it is told in every description of the Passchendaele battles. But its telling would not be complete without some special tribute to the Brigade and Divisional and Corps staffs. In all the history of Canada in France and Flanders they did no better work. Even on the Somme they had no such obstacles to overcome. They were busy night and day, and from Corps Headquarters to counter-battery office and from there forward their business was well done.

So with "Intelligence," the land eye of the army. Among the many factors that made Canada famous in the field, it was one of the chief. Its work during Passchendaele was the equal of that of any of the great departments. Its business was the detailed, painstaking collection of myriad facts from many and often dangerous sources; and its problem to dove-tail associated and often apparently unassociated data of a minute nature into a comprehensive whole at once illuminating and accurate. From battalion Intelligence officers and artillery "O Pips" back to brigades, divisions, and corps, the Canadian Intelligence worked smoothly and well. From advanced observation posts, from airmen, from battalion runners, from signals and telephone, from telegraph and wireless, the corps was kept constantly in touch with the battle; and from such machinery for discovering and reporting developments quickly, from the examina-

tion of prisoners, from the microscopic study of aeroplane photographs, and from other and varied sources, the Corps Intelligence estimated battle prospects, battle developments, and — at Passchendaele — battle successes.

The engineers had their own problems to solve, and difficult ones. East of Kansas Cross the ground was almost impassable, without roads and walks. Establishing their main forward base at Spy Farm just west of Kansas Cross, the engineers, with many calls upon the infantry for working parties, strove night and day to facilitate the movement of men and materials. Scores of lorries brought supplies to the forward base. From there man-power replaced petrol, and three or four men apiece were required to carry the great planks that served as the top-dressing of the roadways. Hours of labour were spent in establishing some sort of foundation in the mud, and fascines were extensively employed to carry the thoroughfares over the marshy land, particularly west of Abraham Heights. Also, as fast as roads were built they were shelled or bombed, and repairs made constant demands upon men and materials. From the ends of the plank roadways "trench walks made with bath-mats" were extended far into the forward area. Even with these piling was necessary, and no walk was passable for long without constant attention. Then, the engineers were responsible for the water supply in the advanced zone and had to pipe it to Kansas Cross and beyond. In their hard and difficult work they received splendid assistance from the pioneer battalions, who while assisting them also assisted the infantry in other hard and dangerous tasks. While the men of the tramways had no such area to work in as that which they had constructed around Vimy, they laid two and a half miles of rail over the shell-ridden, artillery-swept salient during the period the corps was in Flanders.

No appreciation would be nearly complete without some tribute to the military police. Their work was called "bomb-proof," save when there was hell around. Then their drill was, not less than the Birkenhead drill, "a damn tough bullet to chew." It was part of their business to direct the traffic on the roads — plank and *pavé* — in and out of Ypres. They stood at the cross-roads — that was their business. By day enemy airmen bombed those roads — sometimes in squadrons of ten and fifteen machines. "*Parti tout de suite*" was the popular pastime under those conditions, and muddy, shell-torn fields were green and pleasant. The traffic men stood to their posts. One could count the shells — one by one they would creep up a road. The traffic men counted them and stayed while they approached. Horses were killed. Lorries were blown into bits of kindling wood. All who could, made for less public places. The traffic men could not. At night the enemy bombed and shelled. Men hurried up the roads, hastily fixing their gas masks. The air was heavy with powder and poison. It was black and drear and desperately lonely on the highways. The traffic men stood on their corners. Many were wounded; others died.

In these battles of Passchendaele there was praise and to spare for all; but above all others for the captains and the subalterns and the men — of the line and the gun, of the engineers and the pioneers, of the stretcher-bearers and the Medical Services. To them and to their kind Canada owes a debt that is beyond calculation, thanks that are without limit. They were the foundations and the bulwark of the corps, its bone and its body. Upon their thought and their courage in immediate issues — such as that at Bellevue — depended the attack and the defence, success or failure. They were the materials of platoons and the leaders. They knew the frenzy and the passion of battle and the strain and stress of waiting that preceded the zero

hour. They felt the shock and roar of barrage and the terrible storm of answering shells. They knew the perils and the trials of counter-attacks and the long hours of patience in shell hole and slime. They knew of bombs and the habit of bombs and invited death with their learning. They swayed with their limbers over shell-torn wastes and often died in the driving. They built their trenches under bombardment and digged their graves in the building. They tended their wounded under fire, and, wounded themselves, continued. They knew their guns as a friend knows his friend and lived and were with them as such. Whatever their calibre and whatever their range, they directed and laid them for death. The whole corps rang with praise of the N.C.O.'s and men. Concrete pill-boxes, fortified shell holes, machine-gun strong points, dominating heights — these things they fought and overcame, and with them mud and cold and slime and sleet. They lived in water up to their knees for days and nights on end. They lived without fires and without shelter in the shivering cold of those autumn nights, and their courage was nowise daunted. They suffered all the evils of trenches — fever, feet, and mouth. To wet and cold and exposure were added lice and scabies. They seemed to endure beyond human endurance, and then, as the sons of Martha, —

> Early at dawn ere men saw clear,
> They stumbled into Death's terrible stall,
> And haled him forth like a haltered steer,
> And goaded and turned him till evenfall.

And as they stumbled on under murderous fire with their comrades falling around them, their subalterns were there a little in front to encourage and direct and lead them. They led their forties and their hundreds, and sometimes more than their hundreds, into the mouth of hell and kept their heads in the leading. They shared labours and dangers, joys and sorrows, hardships and troubles. And so with their captains

above them. So all worked together. So they brought honour to the Dominion. So they died in noble service "simply given to their own kind in their common need."

5. Holding the New Line

Such had been the life of the Canadian soldiers during the attack on the ridges, and it was to continue after the capture of Passchendaele itself. An ominous quiet brooded over the battle-scarred region after the attack of the 6th. Hindenburg had ordered that his lost positions be retaken at any cost. But from November 7th to November 9th conflicts between patrolling parties were all that characterized infantry activity. The enemy was preparing for his attack that was to sweep us off the ridge. And if his infantry was inactive, his guns were not. It only requires a few lines to indicate what it meant to live upon Passchendaele Ridge in those days. The 22nd Battalion, which had been in reserve for the 5th Brigade during the attack of November 6th, took over part of the forward area on the 26th. Five days later it was away down on the Vimy front near Mericourt. It had lost ninety officers and men, killed or wounded, in three days of "infantry inactivity" on Passchendaele Ridge. Such was the measure of quiet on the Ypres front.

The Germans were boasting of how they would recapture the ridge. On November 10th the tremendous thunder of barrage shook the salient again. But the Canadians had outmanœuvred the enemy. It was Canadian troops that were smashing forward—this time on a six-hundred yard front—against Venture Farm and Vindictive Cross-roads; and men from British Columbia, Manitoba, and Eastern Ontario were emulating the dauntless heroism of those that had fought before them. Beside them, on their left,

were splendid Imperial troops of the 1st Division, the object on the extreme Canadian right being to render the Canadian position still more secure by driving the enemy well down into the mud of Roulers plain. The brunt of the Canadian fighting fell on the 7th and 8th Battalions of the 2nd Brigade, the 8th being on the left flank, with the 7th in the centre and the 20th Battalion of the 2nd Canadian Division on the right of our attack. Five minutes after the drum-fire of our guns thundered through the salient, the infantry went forward. The weather was bad, with a regular Flanders drizzle to prevent observation and to turn the mud to glue that made the going desperately heavy. Also the enemy response to our barrage was prompt, and became intense within ten minutes of our advance. The German guns did their best to save the day, but the infantry gave little battle. The 20th Battalion gained its objective quickly and easily, encountering practically no opposition. In the centre the 7th Battalion won its way to Vindictive Cross-roads, bothered most of all by rifle and machine-gun fire from Venison Trench, some distance in front of its objective. It pressed forward against the position, capturing a portion of it and silencing the fire. The 20th Battalion extended its line to conform. But on the extreme left of the Canadian attack the 8th Battalion was fighting with its flank in the air. The men of the 1st (Imperial) Division, facing almost impassable country and swept by enemy machine-gun fire from strong points at Vocation and Vox Farms, were unable to advance in conjunction with our troops. We had taken Venture Farm and the 8th Battalion had carried all its objectives within half an hour of its advance, save on the extreme left flank, which was exposed. At 9.30 a.m. Vox and Vocation Farms were still held by the enemy, and the 8th Battalion accordingly formed a defensive flank. Later in the day it was obliged to refuse this flank still further, while the

7th Battalion fell back to its original objective and the whole of the original objective on the front of the 7th and 20th Battalions was consolidated. In short, in approximately half an hour, despite all the boastings of the German Command, the Canadians had carried out their whole plan of attack with absolute success, save on their left flank, where the situation of the British forces did not admit of complete advance. And these positions they held despite one of the most deadly artillery duels in all history.

From the opening of our barrage at six o'clock in the morning until five in the afternoon, the salient reechoed to the roar of guns. Our troops on their narrow front were exposed to concentrated enemy fire from Westroosebeke, Oostnieuwkerke, Roodkruis in the north and Waterdamhoek, Dadizeele, and Terhand in the south. High-velocity guns harassed our communications, and for five hours, between ten o'clock and three, Abraham Heights and Korek were subjected to intense bursts of fire. The enemy employed every available battery. He seemed to be trying literally to blast us out of our positions. He failed. What our infantry had gained it held, but all day long the men of the 7th, 8th, and 20th Battalions, lying in water-soaked, half-filled shell holes or belly down in shallow trenches scooped out of the mud, endured shelling surpassing anything in the history of the Canadian Expeditionary Force. High-explosive shells and shrapnel screamed around them. The ground was harrowed by the fire. Men were buried in the mud, dug out by their comrades and buried again, and again dug out, digging out others between times. And they held on doggedly while morning gave place to noon and noon to evening. Behind them our own guns roared incessantly, raking the enemy's defensive lines, engaging his batteries from north to south, fighting the whole weight of his artillery along miles of front. Neither resting nor eating, our gunners fought the

great battle, with the Imperial batteries on the left fighting gamely with them; and the salient, flaming with fire at dawn, was flaming with fire at dusk, while all day smoke hung over the land and the ground was never still. Then quiet fell, and from the forward areas men stumbling in the dark over shell-ploughed country, staggering exhausted along narrow board-walks, came to the advanced dressing stations with their stories of how the new line had been held and consolidated. They told, also, of two German counter-attacks that had been launched in the early afternoon and been defeated with heavy losses to the enemy. The first was near Venison Trench, where the enemy was seen assembling at 1.45 p.m. It was broken up by our artillery; and when the second was launched against Vindictive Cross-roads, an hour later, it met an even more vigorous reception from our artillery and machine-gun fire.

With our wounded came German prisoners, who paid reluctant but striking tribute to the work of our guns. Some amazing stories were told, also, concerning the conduct of German officers. One officer of the 140th I.R., for instance, stated that when we attacked, all the other officers of his battalion ran back to shelter some three hundred yards behind the front line, leaving their warrant-officers, N.C.O.'s, and men to carry on. In another instance eleven officers were captured in one dug-out. In still another case officers had ordered men taking refuge in their dug-out to get out and fight, while making no attempt to do so themselves.

Indeed, the repeated successes of the Canadians had badly damaged the *moral* of the enemy. Information from numerous sources showed that in two cases his carefully planned attacks had been nullified by the Canadian offensives, and the Canadian victory of the 10th largely disorganized his fighting units. It was the crowning offensive of Canadian forces in Flan-

ders. Marked artillery and aerial activity prevailed for the next two days, but there was no change in the infantry situation. On the 13th, however, the enemy made one more bid for victory. Long before dawn his guns were sweeping the forward areas with barrage fire. At 5.15 a.m. our artillery was answering S.O.S. calls from our front line. But it was after 4 o'clock in the afternoon when the real attack developed. The enemy advanced in force from Vindictive Cross-roads to Victoria Farm. He was caught by terrific fire from our artillery and suffered heavy losses at every step. Those who survived were subjected to our rifle and machine-gun fire and repulsed all along the line by our infantry.

As the Germans had failed to blast the Canadians off the ridge, so they had failed to drive them off. Their picked fighting troops had been forced to accept defeat. During the battles the Canadians had captured 1,174 prisoners, including two battalion commanders. In three weeks they had fought four battles and repulsed over two dozen counter-attacks. Their total casualties from October 24th to November 12th, according to a public statement of the Minister of Militia on November 15th, amounted to 122 officers killed, 350 wounded, and 7 missing, while 778 men had fallen, 7,397 were wounded, and 905 were missing. But their dead had died gloriously and their achievement had been wonderful. Behind the living on the ridge, as they looked back on November 14th, was little but desolation; before them were Keiberg Spur, the Roulers plain, and Moorslede, a green, rolling country of farms and villages seemingly untouched by war. Behind them were Mosselmarkt, Meetcheele, Bellevue, Crest Farm, lone mounds of concrete that had been enemy pill-boxes, blasted trees, mud, and devastation. Enemy shells were blasting Passchendaele; our guns were blasting the enemy's; and our men were toiling to strengthen their positions in the mud. From Pass-

chendaele to Ypres a mist hung over the land, veiling the distant beauty and the near desolation. Our men had won their way through the Valley of the Shadow of Death that was the salient to heights that represented domination and crowned a great achievement. The dead of an Empire lay in the valley, the dead of Langemarck and St. Julien, and of more recent struggles. Because of them and the living who fought with them and followed after them the ridge was ours. The tragedy of the low graves was relieved by the victory of the high hills. The shadow over the salient was lifting. Up to the ridge and on to the ridge, the Canadian Corps had stormed its way in a remarkable series of battles. The striking prophecy of the Corps Commander had been splendidly fulfilled. Canada in the field had kept faith with her dead and written the imperishable story of the glory that is Passchendaele.

APPENDICES

APPENDIX I

CANADA IN THE WAR AT SEA

1. Canada's Naval Effort on the Pacific

Said John Hollond, in his *Discourse of the Navy,* "The naval part is the thread that runs through the whole woof, the burden of the song, the scope of the text." That is as true to-day as it was in 1638. Now that the Great World War is over, and the veil of secrecy lifted that so effectively concealed the operations of the British navy, we are beginning to understand the stupendous part it played in the struggle; to appreciate the fact that control of the seas was beyond all question the governing factor in the conflict. However relatively insignificant, therefore, may have been Canada's contribution to the Empire's maritime scheme of defence, it is worth recording as an essential part of the story. It involved the defence of the eastern and western coasts of the Dominion, which meant a good deal more than might appear on the surface; the transportation overseas of the Canadian army and its reinforcements; the shipment to Europe of immense stores of munitions and supplies of every description for the Allied armies, as well as food for the civil population; the extremely important work of the Naval Intelligence Service; the organization of a Canadian Naval Air Force; the enlistment and training of men for the Naval Service in Canada; the enlistment of men for both the Royal Navy and the Royal Naval Air Service; the maintenance of dockyards and naval depots, and the provisioning of our own and other warships. The

carrying out of this quite formidable programme, with the maximum of efficiency and the minimum of friction, was made possible by the fact that Canada had, at the opening of hostilities, a small but well-organized Naval Department, capable of unlimited expansion.

At the outbreak of war Canada had two cruisers,—one on the Atlantic and the other on the Pacific. H.M.C.S. *Niobe* was stationed at Halifax, and H.M.C.S. *Rainbow* at Esquimalt. Neither had been in commission for some time, but were prepared for sea with the utmost expedition, and placed at the disposition of the Admiralty. The *Rainbow* was in better shape than the *Niobe,* having been ordered to undertake the Behring sea patrol. The *Niobe* had for some years past been used solely for depot and training purposes, and it was not until September that she was ready for sea. To complete her complement trained officers and men were obtained from a couple of small Imperial ships on the Pacific, which will be referred to later, and from the Royal Naval Reserve in Newfoundland, as well as a number of volunteers and old service ratings from various parts of Canada. She took her place on the Atlantic patrol with other cruisers of the Royal Navy of similar classes.

The *Rainbow,* as has been already indicated, was more fortunately situated. She had been prepared for sea, though not for war service, some little time before the end of July, 1914. Two incidents may be mentioned here, because they had a bearing on her effectiveness at the outbreak of hostilities. On the 20th of that month trouble broke out on board the *Komagata Maru,* which had arrived in British Columbian waters with a large number of Hindoos. The situation finally appeared so serious that the *Rainbow* was sent for. The martial intentions of the Hindoos evaporated, and the *Rainbow* escorted the *Komagata Maru* out to sea. Incidentally this brief service brought to light certain weak spots in the

Rainbow, which were remedied before she was needed for more serious duties. The other incident that had a bearing on the fortunes of the *Rainbow* was the official approval of the Naval Volunteers. The Naval Volunteers were made up of enthusiastic amateurs, who had been training for some time under rather discouraging conditions. Three or four weeks before the declaration of war, word came from Ottawa that the long-delayed official sanction had at last been granted. Consequently, the *Rainbow* had at hand ample material from which to make up her complement, and when the warning came that war was imminent some fifty of the Naval Volunteers were taken on board for intensive training. They were kept at it from morning to night, and their only complaint seemed to be that there were only twenty-four hours in the day instead of twenty-five. The same fine spirit animated these inexperienced sailors as was found in the citizen soldiers of Canada's army. They saw strenuous service on the *Rainbow* for many long months, and their officers spoke in the highest terms of their energy, intelligence, and discipline. That, indeed, has been the experience in the Naval Service on both coasts. As recently as February, 1919, Vice-Admiral Story, Naval Commander at Halifax, in an address to Canadian newspapermen, paid a warm tribute to the grit and determination and unconquerable spirit of cheerfulness of the Canadian volunteers in the Atlantic Patrol Service, many of them drawn from inland towns, and with no previous experience of the hardships they were called upon to endure.

On August 2nd, 1914, the *Rainbow* received orders to proceed to the southward. Her general mission was to protect trade routes along the Pacific coast, from the Equator to Alaska; and her immediate object was to extricate from a somewhat awkward corner two British sloops of war, H.M.S. *Algerine* and *Shearwater*, which were somewhere in Mexican

waters, and with which the German cruisers *Leipzig* and *Nurnberg* were believed to be playing a cat and mouse game. As the actual position of either the British or German ships had not yet been ascertained, the *Rainbow* cruised off the strait of Juan de Fuca, impatiently waiting for further orders. Finally, on August 5th, information came to the effect that the British sloops had left San Diego the previous day for the north, and that the German cruisers had been reported the same day off Magdalene bay, also steaming north. San Diego, it will be remembered, is a port in California close to the Mexican border, and Magdalene bay is near the foot of the peninsula of Lower California. The German cruisers were therefore some distance behind the sloops, but as their speed was considerably greater, there was every possibility that they might overtake them in the long race up the coast. The *Rainbow* therefore made off at top speed to the southward.

To appreciate the situation, one must bear in mind the relative strength of the British and German ships. H.M.C.S. *Rainbow* is a cruiser of 3,600 tons; no armour beyond protective decks. Her extreme speed is 19 knots; and her armament, two 6-inch guns, six 4.7's, four 12-pounders, and two above-water torpedo tubes. The *Algerine* and the *Shearwater* are sloops, the former of 1,050, the latter of 980 tons; no protection; armament, four 4-inch guns, old pattern; speed of *Shearwater*, 13 knots; of *Algerine*, 12 knots. The German cruisers, *Leipzig* and *Nurnberg*, were approximately of the same tonnage as the *Rainbow*, the former 3,250 and the latter 3,450 tons, and had similar protective decks. Their armament consisted of ten 4.1-inch guns, and their extreme speed was 23½ knots; but at the outbreak of war their effective speed was no doubt less than this, owing to their foul bottoms, they having been in commission for some time. In any case, however, they could probably outrun the *Rainbow*, and

most certainly could overtake the *Shearwater* and the *Algerine*. Also, and this is the really vital point, their 4.1-inch guns were of modern pattern, with an approximate range of 10,000 yards; while the *Rainbow's* best guns had an extreme range of only 8,500 yards, and an effective range of 5,000 yards, and the 4-inch guns of the sloops could touch nothing beyond 4,000 yards. The Germans therefore had on the Pacific coast at the outbreak of war two cruisers to a cruiser and two sloops of the British; and both in speed and gun-range their ships outclassed ours. The *Leipzig* and the *Nurnberg*, together or alone, were in a position, *given clear weather*, to sail round the *Rainbow*, the *Shearwater*, or the *Algerine*, and hammer them to pieces without getting into range of their guns. Under any circumstances, the sloops were negligible quantities so far as fighting was concerned; so that the situation really had to be faced by the *Rainbow* alone. In clear weather she had not a dog's chance against the Germans. The only possible trick she had up her sleeve was to catch the Germans in a fog and get within effective range before they discovered her. This she attempted to do, whenever she could get any word of their whereabouts, but the *Leipzig* and the *Nurnberg* were playing safe. They were willing to pick up the *Algerine* or the *Shearwater*, but kept away from the vicinity of the *Rainbow*, probably having been instructed to take no unnecessary chances, as they were to join Admiral von Spee's squadron in the South Pacific. Two other handicaps under which the *Rainbow* laboured when she sailed from Esquimalt were her inability to secure any high-explosive shells, having nothing on board but common shells, and the inadequate range of her wireless apparatus, which was limited to two hundred miles. Both these deficiencies were remedied later, but at the time they undoubtedly reduced her fighting strength.

Two days after leaving Esquimalt, the *Rainbow* ran

into San Francisco harbour in a thick fog. Nothing had been heard there of the sloops. The German cruisers were still apparently off Southern California. The welcome news arrived, however, that a collier had been commissioned to rendezvous at the Farralone islands, off San Francisco, and that she was to bring lyddite shells. It was also learned that a steam schooner was about to leave San Francisco with stores for the German cruisers. The *Rainbow* therefore slipped out of the harbour at one o'clock on the morning of the 8th, and lay outside waiting for the schooner, but without success. After waiting several days, without getting any news either of the sloops or the Germans, she returned to Esquimalt for coal. The collier had not yet sailed.

On the 12th, while on her way to Esquimalt, the *Rainbow* spoke the hospital ship *Prince George;* and the following morning, to their very great relief, picked up the *Shearwater* in the strait of Juan de Fuca. The first message from the *Shearwater* was, "Has war been declared?" They had been steaming up the coast for nine days without speaking any other vessel, knowing only that war was imminent, and were consumed with curiosity as to what was happening in the world. They knew nothing as to the whereabouts of the *Algerine.*

The *Rainbow* coaled at Esquimalt, and started south again to look for the *Algerine.* The same day, while still in the strait, she got a wireless to the effect that the *Algerine* had been sighted off cape Blanco, and the *Leipzig* off cape Mendocino, not very many miles to the south. Early in the morning of the 14th a message was received that the *Algerine* had been sighted about forty miles south of cape Flattery, and that the sloop was short of coal. The *Rainbow* turned about, and steamed at full speed for the *Algerine,* expecting that the *Leipzig* might appear at any moment. The sloop, however, had been able to secure coal from a

tramp, and was putting her best foot foremost, leaving behind a trail of mahogany tables and other peacetime luxuries, shed in her efforts to strip for war. Nothing was seen of the *Leipzig,* and the two ships reached Esquimalt uneventfully on the 15th.

The next few days were spent in cruising off the entrance to the strait, getting the guns into shape, and keeping a lookout for the *Leipzig.* On the evening of the 19th, the commander of the *Rainbow* received a message from a survey ship saying that the *Nurnberg* had that day been sighted off Prince Rupert. The *Rainbow* steamed north as hard as she could go, but, although her commander obtained at Prince Rupert ample confirmation of the report that the *Nurnberg* had been in the vicinity, he was unable to get in touch with her. The *Rainbow* cruised about Brown passage and Dixon entrance until the end of August, and then returned to Esquimalt. Nothing more was seen of either the *Leipzig* or the *Nurnberg* in northern waters. The former sailed for the gulf of California, where she found a secluded harbour and got rid of her accumulation of barnacles. Both cruisers then joined Admiral von Spee's squadron in the South Pacific. The *Rainbow* had searched the Mexican coast for the *Leipzig,* but without success. In September our naval strength on the Pacific was materially increased by the arrival of H.M.S. *Newcastle,* and later by the Japanese cruiser *Idzuma.* The quest of the Germans was not altogether without its humorous features. The hospital ship *Prince George,* with her cruiser stern and three funnels, could readily be mistaken for a German cruiser on a foggy day, and the *Rainbow* was constantly being put in the annoying position of having cleared for action with her own hospital ship.

Early in 1915 several additional Japanese cruisers arrived at Esquimalt, as well as H.M.S. *Australia,* making with the *Newcastle* and the *Idzuma* quite a

respectable squadron. It was determined to go south in search of von Spee's squadron. The *Rainbow,* much to the disappointment of her officers and crew, was given the important but unexciting duty of acting as a wireless linking ship with Esquimalt. Her station was about a thousand miles south of Esquimalt, and there she had to lie for weeks, relaying messages between the squadron and headquarters. The commander of the *Rainbow,* feeling that if there was to be a fight the Canadian ship was entitled to a share in it, sent a message to Esquimalt requesting permission to join the squadron. His request was refused, but the circumstances are worth mentioning as an illustration of the possibilities of present-day telegraphy. The message went by wireless to Esquimalt; by land telegraph to Ottawa; by cable to the Admiralty; the Admiralty referred it to the senior officer in the squadron, by cable to Jamaica; thence by wireless to Belize; and again by wireless to the squadron. The reply came back by the same route, and reached the *Rainbow* the following night.

The years 1915 and 1916 were spent in patrolling the coast from Panama north, looking for raiders and suspicious craft generally. This service brought the Canadian officers every little while into relations with the Naval or Consular officers of the United States. The following incident may be told, as illustrating the well-recognized fact that, while the American officers played the somewhat difficult game with absolute fairness while their country remained neutral, their hearts were always in the right place. It appears that one of the Canadian officers was ashore one day, in some port south of California, and the United States Vice-Consul invited him into his office to have a drink. As they stood, glass in hand, the Vice-Consul looked at the Canadian very solemnly, and drawled: "Before we go any farther, I must remind you that the United States is neutral. Of course I am neutral—ab-so-

lute-ly neutral; I don't care a damn who licks the Germans!"

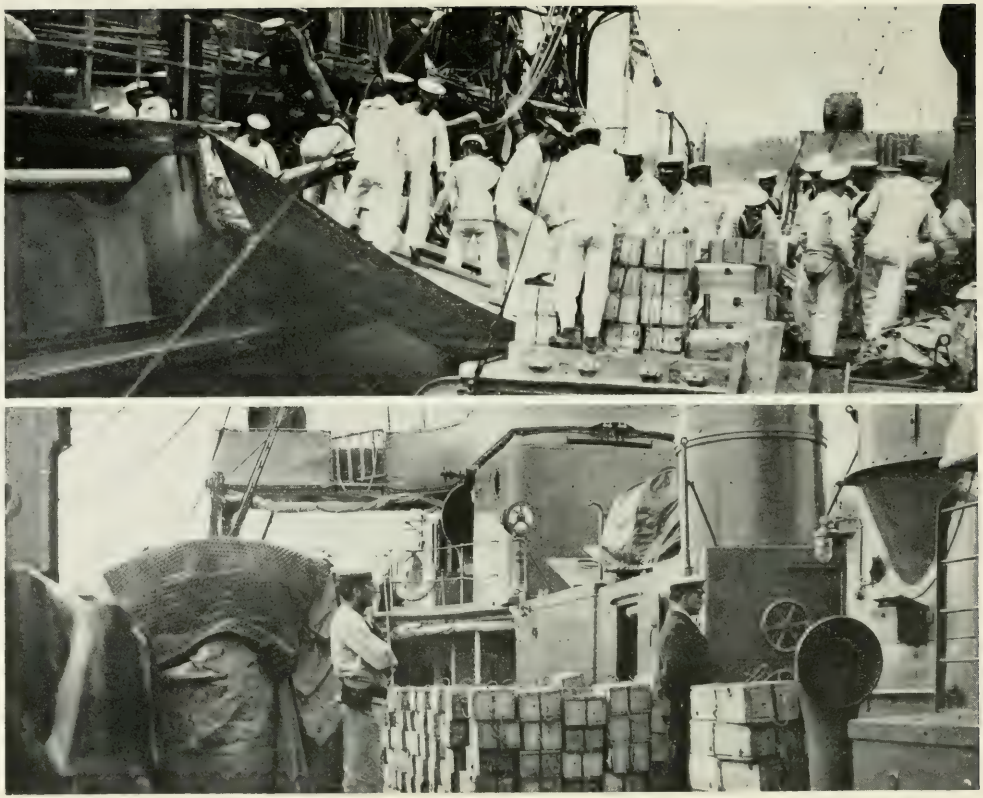
In April, 1916, word was received of two schooners, the *Oregon* and the *Leonore,* said to be German owned, and whose operations on the Mexican coast would bear looking into. The *Rainbow* steamed around into the gulf of California, nosed about a bit, and finally picked up the *Oregon.* She had been lying in a snug little harbour, but foolishly came out at the wrong moment. The officers of the *Rainbow* boarded her, found she was German-owned, although flying the American flag, and possessed a suspiciously powerful wireless. The captain turned out to be a Dane, and when told that his ship was to be made a prize he said he was glad of it, he 'd get back to a white man's country again; but he could n't see just why they had taken his ship; if they were looking for suspicious craft, why did n't they seize the *Leonore?* Her actions were suspicious, if you like. The commander of the *Rainbow* had his own opinion as to the *Oregon,* but he took the Dane's advice as to the *Leonore,* and, after cruising about a bit, picked her up and added her to the bag. She seemed reluctant to come in. The *Rainbow* signalled her to stop, but she paid no attention; then the whistle was tried, but without success; finally a shot was sent across her bows, and that had the desired effect.

The skipper, when questioned, was surly and very indignant. What right had they to capture an innocent merchantman, flying the Mexican flag; and, above all, what right had they to wake him from a sound sleep at five o'clock in the morning? There had been a baby on board, he said, and it had cried energetically and unceasingly all night. He had just about got to sleep when the mate told him there was a man-of-war overhauling them. "Hang the man-of-war," he said, and turned over for another nap. The mate came back to say that she was signalling. "Let her signal,"

replied the skipper. Again the mate came down to announce that she was whistling. "Let her whistle, blankety-blank her," cried the exasperated skipper. Finally, when the *Rainbow* fired a shot across his bows, the skipper concluded that he would have to get out of bed. But he still failed to see why the *Rainbow* should make a prize of his steamer. "If you must make a prize," he said, "go and find that notorious craft the *Oregon.*"

The Mexican crews of the two steamers were put on shore, and the *Rainbow* started north with her brace of prizes. It took them just a month to get to Esquimalt. It blew a gale all the way up the coast, and the prizes had to be towed most of the time. The *Rainbow* took the *Leonore,* and the collier took the *Oregon.* The *Rainbow* reached Esquimalt with exactly six tons of coal in her bunkers. After coaling, she started back to help the collier, but found that the cable had parted, and that the *Oregon* was drifting helplessly with ninety fathoms of 3½-inch wire cable hanging from her bows. After a great deal of labour the cable was picked up, and the three vessels made their way into port.

An incident of the *Rainbow's* service on the Pacific that is not without interest is her connection with the shipment of Russian gold to Canada. The gold was brought across the Pacific by a Japanese boat, and trans-shipped to the *Rainbow* at a secluded spot on the west coast of Vancouver island. Somehow the fact that it was going forward had leaked out in Tokio, and was published in American newspapers after the ship had left Japan. It was not considered desirable, therefore, that she should go to Vancouver, and she was instructed to meet the *Rainbow* on the west coast of the island, get rid of her gold, and return as unobtrusively as possible. The gold was in bullion, packed in what looked like ammunition boxes, and was handled as ammunition. Altogether there



SHIPPING GOLD TO CANADA IN WAR TIME

were four shipments. On February 16th, 1916, the *Rainbow* handled 948 boxes containing $38,941,591.69 in gold, and 8 boxes containing $1,000,000 worth of platinum; on August 1st, 1916, she carried $38,933,333 in gold; and on February 10th, 1917, the *Rainbow* and the *Shearwater* between them brought over to Vancouver $97,333,333.33 worth of the same very precious metal. Altogether, the *Rainbow* carried on these three occasions $141,133,218.02 in solid gold. It made a formidable cargo in mere bulk, and one that kept the *Rainbow's* officers in a state of anxiety until it had been safely delivered at Vancouver. On one trip the voyage through the intricate channels leading from the strait of Juan de Fuca to the strait of Georgia had to be made in a dense fog, and the commander was probably wondering what they did to an officer who succeeded in sinking not only his ship but also some tons of gold. The secret was kept very well so far as the world outside the *Rainbow* was concerned, and to the crew of the *Rainbow* the cargo was officially recognized as "ammunition." Whether they regarded it unofficially as ammunition is improbable. On one occasion one of the boxes was shot down into the hold with unintentional violence, and presently a member of the crew came up to an officer and remarked dryly, "That's very expensive ammunition we have down there, sir!" In addition to the three shipments with which the *Rainbow* was concerned, a fourth was brought direct to Vancouver on May 2nd, 1917, by a Japanese ship. It amounted to $77,866,666 in gold; making a grand total of $253,074,924.02 in gold and $1,000,000 in platinum.

With the declaration of war by the United States it no longer became necessary to keep the *Rainbow* at sea. The German warships formerly on the Pacific had met their doom in December, 1914, in the Battle of the Falkland Islands, and the routine patrol work up and down the coast was now taken over by ships

of the American navy. Her experienced crew, being needed for more active duties on the Atlantic coast, were transferred to Halifax, and the *Rainbow* became a depot ship at Esquimalt, and was also used for the training of officers and men in gunnery and navigation. The crews of the *Shearwater* and the *Algerine* had been paid off early in the war and sent to Halifax, and the *Shearwater* was commissioned in the Canadian service as a mother ship to the two submarines that had been purchased in Seattle a few hours before the declaration of war. The submarines did patrol duty for some time on the approaches to Victoria and Vancouver, and in the summer of 1917, being no longer needed on the Pacific coast, they and their mother ship were withdrawn and proceeded by way of the Panama Canal to Halifax, where they joined the other forces engaged in anti-submarine work.

2. Canada's Naval Effort on the Atlantic

No account of the Patrol Service on the Atlantic coast would, of course, be complete without some record of the service of H.M.C.S. *Niobe*. It is probably partly due to the fact that we are to a very large extent an inland people, with insufficient and largely erroneous ideas of maritime matters, and partly also to the habit of depreciation that is part of our political armoury in parliament and the press, that the idea has become quite widespread during the last few years that the *Niobe* and the *Rainbow* are insignificant craft of about the same tonnage, quite negligible factors in any scheme of maritime defence, in fact a sort of naval joke perpetrated on the country by the government of the day. That is very far from the truth. The *Niobe* is a cruiser of 11,000 tons, armed with 6-inch guns, and with a maximum speed of 20½ knots. She is therefore a more formidable craft in

every respect than the *Rainbow*, and is able to give a pretty good account of herself against vessels of her own class. Her part in the war, however, while very important indeed, was destined to be rather humdrum. She patrolled the coast for twelve months, steaming altogether over 30,000 nautical miles, but never got even as near a real fight as did the *Rainbow*. The value of her work was rather negative than positive, for, although she made no important captures of enemy craft, her presence on the coast, off New York harbour and elsewhere, did unquestionably prevent German vessels getting out onto the high seas, where as raiders they might have done incalculable harm to Allied shipping. The period of active service of the *Niobe* was before the United States had come into the war, and at that time, within certain well-defined limits, German craft had access to American harbours, if they could succeed in running the gauntlet of Allied warships outside the three-mile limit. The *Niobe* was, of course, only one of a number of His Majesty's ships on the North Atlantic station, but she had always quite enough work to do to keep her busy, with occasional moments of excitement to break the monotony of her long vigil. Thanks to the kindness of Engineer-Lieutenant N. Bannatyne, R.C.N., who served on the *Niobe* throughout her period of active operations, it is possible to give a fairly complete account of her service during the war.

The outbreak of war found the *Niobe* in a state of complete helplessness. The machinery and boilers were "laid up," all working parts were coated with grease or white lead and tallow, and everything had been put in a state more calculated to preserve it from frost and corrosion than to answer a sudden emergency. What remained of the crew at this time had been sent to Glace Bay with a field gun, to protect the wireless station, and the *Niobe* was left in charge of a watchman.

The moment war was declared, however, the vessel was at once placed at the disposal of the Admiralty; steps were immediately taken to recruit the crew to war strength; and the work of preparing the ship for sea was rushed night and day. Recruits were drawn from various sources,—some of them ex-naval men and men from the mercantile marine, many others inland men who did not know much about the sea, and still less about a warship, but were ready to learn, ready to work, and more than ready to fight.

It is said to have been a ragged looking crew that gathered on deck when both watches fell in, in the early days of the war. A few would be in uniform, but the majority still wore the civilian working clothes they happened to be wearing when they enlisted. Even the officers, arriving from various parts of the country at very short notice, were dressed in strange mixtures of uniform and mufti. A lieutenant might be seen directing the energies of a group of men attired in a pair of light-coloured tweed trousers, a borrowed monkey jacket, and a uniform cap, with or without a badge. A sub-lieutenant in a blue serge double-breasted coat directed the loading of stores, and at the same time busied himself in getting rid of the bone buttons of his coat and replacing them with naval brass buttons.

In spite of the nondescript appearance of the crew, their one ambition seemed to be to get the *Niobe* to sea at the earliest possible moment, and all hands worked hard and unceasingly. In a comparatively short time steam was raised on one group of boilers, and the *Niobe* was placed in dry dock. By the end of August she was once more in sea-going condition, and left the harbour for a trial trip, when, to the delight of the engineers, she succeeded in making a speed of nineteen knots. Earlier in the month the crews of the *Algerine* and the *Shearwater* had arrived in Hali-

fax to augment the crew of the *Niobe*, and the captain of the former took command of the cruiser.

On the 1st of September the *Niobe* proceeded to sea on her first active cruise of the war. Her first port was St. Johns, Newfoundland, where she took on one hundred and fifty men of the Newfoundland Royal Naval Reserve. From St. Johns, she proceeded up the gulf of St. Lawrence, met the troopship *Canada* off Anticosti and escorted her to Halifax, where the Royal Canadian Regiment embarked for Bermuda. The *Niobe* escorted the *Canada* to Bermuda, and back to Halifax, bringing the Lincolnshires, who were to go overseas with the First Canadian Contingent.

The voyage to Bermuda was not altogether without incident. At this time the German cruiser *Karlsruhe* was known to be at large in the Atlantic, and the battle-cruiser *Von der Tann* was also believed to be somewhere in the vicinity. The *Niobe* therefore had to be constantly on the alert; and on more than one occasion the crew were called to action stations and the ship went off at full speed to examine a suspicious-looking craft. Occasionally a shot or two had to be fired before the vessel would stop for examination. These were early days in the war, and many commercial vessels did not yet realize the stern necessity of giving an account of themselves to the watchdogs of the seas. Nothing of a suspicious nature was found, however, and the *Niobe* got back to Halifax without further incident.

Rumours floating around had raised the hopes of the crew of the *Niobe* that she would be used as one of the escorting cruisers to sail with the First Contingent to England; but owing to the long time she had been laid up and the somewhat uncertain condition of her engines, it was decided not to utilize her in this way. This was naturally very disappointing to the men, who had hoped to get into some real fighting in European waters. Their fear that the *Niobe* would

be permanently laid up at Halifax proved, however, to be ill-founded, and before long they were doing patrol duty in the neighbourhood of Ambrose channel light-ship, off New York harbour.

Trouble with the condensers, due to the packing having dried out while the *Niobe* had been laid up, sent her back to Halifax once more for overhauling. This was soon made right, however, and the ship was back again on her beat. The patrol area was just outside the three-mile limit. All outgoing vessels were stopped and boarded, and if everything appeared correct were passed on. Sometimes Germans in the crew or among the passengers would be removed, and once or twice vessels were sent to a British port with prize crews on board. There were generally at least two cruisers on patrol off New York, and the patrol lasted from ten to fourteen days, after which the ship would return to Halifax to replenish bunkers.

Toward the end of September, on one of these coaling trips, orders were received at Halifax to complete with all despatch and proceed to sea. A report had been received that a three-funnelled cruiser had been seen in the strait of Belle Isle, and the *Niobe* was sent to investigate. This, like many similar reports, proved to be a canard; at least nothing was seen of the supposed cruiser in the strait or the gulf of St. Lawrence. After cruising about for a week, the *Niobe* returned to Halifax, calling at Sydney on the way for coal, and then back again to her station off the Ambrose light-ship.

This patrol work naturally became after a while very monotonous. The only thing that made it tolerable except as a mere matter of duty was the hope, fed pretty constantly by rumour, that one of the big German boats would attempt to dash out. One of the most persistent rumours was that the gigantic *Vaterland* was preparing to escape. Another credited the *Maddenberg* with a project of getting out to sea with

a big cargo of munitions. Day after day, and week after week, went by, however, with nothing more tangible than false alarms. The forenoons were generally spent cruising at slow speed while evolutions were carried out, with target practice, range-taking exercises, and other similar work designed to keep the crew up to the minute in efficiency. The afternoons, as a rule, were given to work aboard ship, exercises and recreation, the engines being stopped to conserve coal. Throughout the night the *Niobe* patrolled up and down her beat at slow speed. At all times steam was kept ready for a dash of speed of from sixteen to eighteen knots, and it generally happened at least once or twice during the night that this speed would be called for on account of some vessel approaching that looked suspicious, but the suspicion never got beyond appearances.

Twice while on patrol a vessel was seen suddenly to extinguish her lights, and did not at once answer the challenge signal. The crew were called to action stations, every one was on the *qui vive,* and in one case the order was almost given to open fire. The strange vessel was unquestionably a cruiser, from her actions apparently an enemy vessel, and the *Niobe* must not lose the chance of getting in the first shot. Fortunately at the last moment it was discovered that the suspicious craft was one of the British cruisers also on patrol, which for some reason had not immediately answered the challenge of the *Niobe.*

In January, 1915, persistent rumours of German submarine cruisers crossing the Atlantic led to changes in the patrol area and the routine. A speed of ten knots during the day and twelve knots at night was maintained; the patrol was carried out to a greater distance from the shore, and a zigzag course steered all the time. From this time on no vessels were stopped or boarded. Every ship reported her name and destination; this was reported to head-

quarters by wireless, and if necessary she was diverted to another course.

In the spring of 1915 the *Niobe,* after coaling at Bermuda, was sent down to Chesapeake bay. The German auxiliary cruiser *Prinz Eitel Friedrich* was at Newport News. She had undergone some necessary repairs, was complete with stores and coal, and it was generally reported that she was merely waiting for a favourable opportunity to get out. The *Niobe* found four other vessels already on patrol duty in Chesapeake bay,—H.M.S. *Glory,* flagship of the North American and West Indian Station, H.M.S. *Calgarian,* H.M.S. *Cumberland,* and H.M.S. *Suffolk.* The consuls of the Allies had stopped the sailings of all Allied merchant ships for forty-eight hours, in order that the last ship to leave might have twenty-four hours' start of the *Prinz Eitel Friedrich.* The German cruiser had twenty-four hours to get away in.

Just before the expiration of the first period a report was received that the *Vaterland* and other German ships at New York would make an attempt to get out that night. This, as afterwards appeared, was probably a ruse to get the British warships away from Chesapeake bay and give the German cruiser a chance to escape. However, no chances could be taken, and the *Glory,* the *Suffolk,* and the *Calgarian* went off full speed for New York, leaving the *Niobe* and the *Cumberland* to watch for the *Prinz Eitel Friedrich.* Every one was confident that the Germans would attempt to slip out during the night, and looked forward to a chase with the probability of a scrap. All the boilers on the *Niobe* were lit up and steam was kept ready for full power at any moment. Special orders were issued to go into effect on sighting the enemy. No hammocks were slung that night; the men off duty slept where and how they could; mess tables were laid on deck.

At about one o'clock in the morning word of action was passed quietly around the decks, and every one

CAPTAIN CORBETT READING ARTICLES OF WAR

SUNDAY MORNING SERVICE AND BOARDING A NEUTRAL
ON H. M. C. S. "NIOBE"

was soon at his station. The decks were wet down, and all waited anxiously for the first gun to be fired. The *Niobe* was then steaming at full speed, and away in the distance, in the light mist that hung on the horizon, could be seen a faint red glow which looked remarkably like the tell-tale flame from the funnel of a ship developing all her power for a burst of speed. Four similar glows were visible at the top of the funnels of the *Niobe,* whose stokers were getting out of the good ship all the speed she could manage.

After about an hour's hard steaming the glow, which had apparently been getting nearer, disappeared, and shortly afterward a late crescent moon rose serenely above the bank of mist on the horizon. The crew of the *Niobe,* whose hopes, after many past disappointments, had been raised to the highest pitch, were bitterly and profanely disgusted; and it added nothing to their good temper that they had to spend the rest of the night on wet decks, with no hammocks. They cursed impartially the Germans, the moon, and the officiousness of the stokers' fire party. Next morning a British merchant ship leaving Newport gave the information that the *Prinz Eitel Friedrich* had counted discretion the better part of valour and was officially interned.

The following day the *Niobe* left for Halifax, to complete with coal and provisions. There she learned, to the final disgust of her officers and crew, that the night after she left Chesapeake bay the German auxiliary cruiser *Kronprinz Wilhelm* had succeeded in getting into Newport. It was supposed that the German was waiting behind the capes for an opportunity to slip in when the British cruiser patrol had been weakened. Her situation probably contributed to the spreading of the report that called the *Glory* and her consorts to New York.

The *Niobe* resumed her patrol work off New York, returning periodically to Halifax for coal and sup-

plies. Only one incident broke the monotony of this last period of her active service during the war. One evening just at dusk, as she was on her way to Halifax, a submarine was reported at fairly close quarters. The long-suffering crew had a momentary accession of interest, but their usual luck held true. Before "action" could be sounded the submarine was found to be an overturned schooner, with a spar sticking up amidships. A few rounds were fired at the derelict in an attempt to break it up, but without much effect.

During all these months the engine and boiler defects of the *Niobe* were giving more and more trouble, and it finally became apparent that she would have to be laid up for a very extensive refit. It was decided to pay her off and turn her into a depot ship at Halifax. Some of her crew were sent overseas, and the remainder utilized in the patrol and other services on this side of the water.

3. Canada's Naval Defences

Defensive measures, principally on the Atlantic coast, fall into several fairly well-defined classes, which will be dealt with briefly in the order indicated: patrol and mine-sweeping; examination service; port defences; radiotelegraph service; naval intelligence. Something must also be said as to Canada's programme of ship construction during the war; naval recruiting; and some other minor points bearing on the naval side of the country's war effort.

Steps were taken immediately on the outbreak of war to organize an efficient patrol service and establish regular swept approaches to Canadian ports, in view of the possible activity of enemy ships. During the early period of the war these services had to be improvised by making use of the existing Government vessels, with trained naval crews and defensive armament. They were supplemented by other vessels,

chartered or purchased, and by the use of yachts and other suitable craft placed at the disposal of the Government by patriotic owners. In 1917, there being reason to believe that the Germans would attempt to send submarines across the Atlantic, it became necessary to organize the service upon a more comprehensive plan. The effectiveness of trawlers and drifters for patrol and mine-sweeping purposes had been strikingly proved in the North Sea, and it was decided to strengthen the existing flotillas by adding specially built vessels of these types. Orders were placed in Canada by the Dominion Government for twelve trawlers, and by the Imperial Government for sixty trawlers and one hundred drifters. The twelve Canadian Government trawlers, as well as a number of the craft ordered for the Imperial Government, were sent to the two patrol bases at Halifax and Sydney. Later in the war both bases were strengthened by the addition of a number of seaplanes. Under the enlarged system, Halifax became the headquarters for the Nova Scotia coast and bay of Fundy patrol; and Sydney, for the flotillas in the gulf of St. Lawrence, strait of Belle Isle, and Newfoundland waters.

The results in the coastal patrol and mine-sweeping service were, as in the case of the *Niobe,* rather negative than positive. They furnished a reasonable assurance of safety to the enormous volume of shipping constantly moving through these waters in the four years of the war, and that assurance was of incalculable value. The length and nature of the coast to be patrolled made the service one of unusual difficulty, and the conditions under which it had to be carried out were calculated to test to the utmost the calibre of the men engaged therein. That the officers and men, nearly all Canadians, and many of them from inland towns, maintained the traditions of their country and race, is the universal testimony of their senior officers. The service was one to try the mettle of any man, but

it was carried out month after month, in all kinds of weather, with courage, intelligence, and good humour. The rule was sixteen to twenty days on patrol, with eight days in port.

An occasional mine was picked up off Halifax, but not many in the aggregate, for the very good reason that not many mines were ever laid in Canadian waters. The enemy activities of this character were apparently all the work of the two or three submarines that crossed the Atlantic. Beyond these mines, which, thanks to the vigilance of our mine-sweeping service, did no damage, the German submarines managed to sink one large vessel in the bay of Fundy and six fishing schooners. That they failed to do more damage was, again, due to the energy of the patrol flotillas. The submarines were in Canadian waters for several days, and at no time was there any lack of either fishing craft or larger game to engage their destructive attention; but the whole region was so thoroughly and intelligently patrolled, and they themselves were so generally harried about, that they were apparently rather glad to get out of Canadian waters with whole skins.

The patrol service, though dreary and uncomfortable enough as a rule, was not altogether without its lighter touches. One story that is told with a good deal of relish, by all except the crew of a certain trawler, is to the effect that somewhere in northern waters a submarine was one day reported to be in hiding behind an iceberg. This particular trawler was sent after it, and went in great glee and excitement. Submarines had been reported here, there, and everywhere, but it had always hitherto turned out to be a false alarm. This story seemed quite circumstantial. Arrived at the iceberg, the trawler cautiously steamed around it, and there, beyond question, was the German sub, on the surface, with five beastly Huns standing on her deck. The trawler went for her at top speed,

but, alas, as they drew near the submarine dissolved into a dead whale, and the German crew into five gannets standing solemnly on its back. That is the sort of thing that really tries the patience of a seafaring man, and shakes his faith in Providence. The whole tribe of whales, or rather that portion of them inhabiting Canadian waters, have, it is said, had reason enough to know that something unusual was happening in the world of men. Their resemblance to submarines, as they come to the surface, is certainly more their misfortune than their fault, as more than one of the tribe has had bitter reason to know when a depth-bomb exploded under his nose and sent him to Kingdom Come.

One of the later developments in connection with the Patrol Service was the institution of the convoy system. This threw an immense amount of new work upon the Patrol Service. Under the convoy system, from forty to fifty ships were frequently assembled at Halifax or Sydney, and these had to be escorted 180 or 200 miles out to sea. Sometimes there were big store convoys; at other times troop convoys to shepherd safely through the danger zone. An important part of the work was the escorting of iron ore ships between Conception bay, Newfoundland, and Sydney. There were also local coastal convoys to look after. In this work American as well as Canadian shipping, stores, and troops came under the guardianship of the Canadian Patrol Service, as a great deal of this traffic from the United States to Europe was routed in convoys from the Canadian ports.

In 1914 and 1915 an important branch of the coast defence measures was the Examination Service maintained at the principal ports, for the purpose of preventing the entry of any hostile ships, and also to facilitate the movement of legitimate commerce. Vessels of the Canadian Government Marine Service were used for this work. All ships were stopped and

boarded, their papers examined, and if satisfactory they were given the secret signal for the day or night, to be hoisted in a position where it could be seen from the batteries. In 1916 the duties of the examination officers at Quebec and St. John had become rather a matter of routine, it very seldom being found necessary to stop a vessel; and in 1917 the service was discontinued except at Halifax, where it was maintained throughout the war.

Anti-submarine nets were stretched across the entrances to Halifax and Sydney harbours early in the war, and were maintained until hostilities ceased, as a necessary protection to the valuable naval and commercial vessels frequenting these ports, as well as to safeguard the ports themselves.

The Canadian Radiotelegraph Service has been in many respects one of the most active and valuable elements in the defensive system of the country. This service controls about two hundred stations ashore and afloat, all of which were taken over by the naval authorities at the outbreak of war. On the Atlantic coast, by the addition of a large new wireless station at Barrington, Nova Scotia, an uninterrupted chain of naval radio communication was established, from St. Johns, Newfoundland, to British Guiana. Four directional finding stations were also erected during the war on the Atlantic coast, as well as two other stations needed to improve communication. The naval authorities also took over the large transatlantic station at Newcastle, New Brunswick, just completed when war was declared, and utilized it for interception work. A great deal of valuable information for the Intelligence Service was gathered in this way.

The Canadian Radiotelegraph Service also looked after the equipment of naval ships and store transports with wireless sets. The demand for trained operators so quickly exhausted the supply that the Government found it necessary to open a training school

for operators. About two hundred young men were passed through this course, and did good service, not only in Canadian waters, but on ships all over the world.

Probably no branch of the work of the Department of Naval Affairs in Canada was carried on more quietly and unobtrusively or more effectively than that of the Naval Intelligence Service. From its very nature it shunned publicity, and even to-day, when the need of secrecy no longer exists, it is difficult to get much more than the bare outlines of what it accomplished. At the outbreak of the war only a skeleton organization existed, but this was rapidly built up into an efficient service. Generally speaking, the Naval Intelligence Branch may be said to be charged with the collection and distribution of information relating particularly to naval and marine matters, defensive and offensive. It collected information as to the operations and plans of the naval forces of the enemy, and as to the movements of enemy and neutral commerce. It acted as a sort of fairy godmother to our own and Allied shipping, warning them of possible dangers, arranging for their routing, deflecting them when at sea from a menaced route to one that was comparatively safe, and generally looking after their welfare. It had charge of all questions relating to contraband of war; and the censorship of cables, radiotelegraphs, mails, and many other matters. While the United States remained a neutral, it was of course necessary to keep the closest watch on enemy activities in connection with trade in contraband of war, the movement of vessels engaged in this trade, and wireless communications between Germany and the United States. The Government of the United States, it is hardly necessary to say, made every possible effort to prevent breaches of its neutrality by Germans or German sympathizers; but, as the world learned in time, the ramifications of German plots were extraor-

dinarily intricate and wide-spread, and constant vigilance on our part was the price of safety. The Naval Intelligence Service gathered a great deal of information of the utmost value and transmitted it to the Admiralty from time to time. The entry of the United States into the conflict on the side of the Allies rendered unnecessary many of the activities of the Naval Intelligence Service of Canada, and others were taken over by their own well-equipped service.

The rapid expansion of defensive requirements in 1917 made it necessary to arrange for a large construction programme. This was placed under the control of a Ship-construction Branch. As already mentioned, the Canadian Government placed orders in Canada for 12 trawlers, and shortly afterward the Imperial Government arranged for the construction in Canada of 56 trawlers and 134 drifters. Contracts were let for the construction of these vessels in the following localities: Montreal, 11 trawlers and 30 drifters; Sorel, 6 trawlers and 20 drifters; Levis, 36 trawlers and 50 drifters; Three Rivers, 3 trawlers; Kingston, 6 drifters; Collingwood, 8 drifters; Toronto, 6 drifters; and Port Arthur, 14 drifters. Contracts for the engines, boilers, and auxiliary machinery were also made with reliable firms throughout the country, and the whole work was pushed as rapidly as possible so that the vessels might be available for service in the summer of 1918. As a matter of fact, many of them were launched in 1917, and a few of the drifters were sent to European waters in the fall of that year under Canadian crews. The remainder of the drifters, and all the trawlers available, were employed throughout the year 1918 off the Atlantic coast in anti-submarine work. In addition to this construction programme, a large number of motor launches were built in Canada for the Admiralty. Some of these were used in Canadian waters, and others were shipped overseas on store transports and used to good advantage around

the coasts of the United Kingdom, as well as in the Mediterranean, on the West Coast of Africa, in the West Indies, and in South Africa. Some of them participated in the famous attack on Zeebrugge in conjunction with H.M.S. *Vindictive* and other craft. Ten submarines of the "F" class were also built, by Canadian Vickers in Montreal, for the Admiralty in 1916. They were stationed at Quebec for some months while undergoing exhaustive trials prior to sailing for St. Johns, Newfoundland, and thence to England. Some went to Gibraltar. They were escorted by a freight ship carrying supplies. In 1917 six of the same class of submarine were built by the same firm for the Italian navy, and crossed the Atlantic via the Azores and Gibraltar. Canadian shipbuilding plants also turned out during the war a number of submarine chasers for the French Government; steel towing cargo barges for use in shallow rivers, for the Imperial Government; wooden cargo vessels of 1,500 tons for the French Government; and other miscellaneous craft, including the reconstruction, principally for the United States Shipping Board, of a number of vessels that were brought down to Quebec from the Great Lakes in halves, to get through the locks, and joined and riveted together for sea. One rather unusual piece of work carried out in Canada for the French Government was the transformation into a cargo vessel of 2,600 tons of a suction dredge originally built in Germany. The vessel was cut in two, the two halves drawn apart, and fifty feet added to the ship's original length of one hundred and seventy feet.

At the close of hostilities the vessels under the control of the Department of Naval Service of Canada were as follows: On the Pacific: H.M.C.S. *Rainbow,* depot and training cruiser; H.M.S. *Algerine,* sloop; auxiliary patrol vessels *Malaspina* and *Galiano,* and several motor launches for harbour patrol work. On the Atlantic: H.M.C.S. *Niobe,* depot and training

cruiser; H.M.C.S. *Shearwater,* submarine depot ship; 2 submarines; H.M.C.S. *Grilse,* torpedo-boat destroyer; H.M.C.S. *Tuna,* torpedo boat; 8 auxiliary patrol vessels; 60 armed trawlers; 80 armed drifters; 11 armed mine-sweepers and tugs; and a large flotilla of motor launches for coastal patrol and harbour duties. In addition to these vessels, the United States had stationed in Canadian waters several cruisers and destroyers and a number of submarine chasers.

During the summer of 1918, the Canadian Government decided to establish the Royal Canadian Naval Air Service, for the purpose of strengthening the anti-submarine defences on the coast. Stations were established in August, 1918, at Halifax and North Sydney, with the co-operation of the United States Naval Aviation Corps, and continuous patrols were maintained by large flying boats of modern type. An important part of the work of the Naval Air Service was to assist in escorting convoys through the danger zone. General flying operations were also carried on, and although the work was performed in all kinds of weather, it is a tribute to the general efficiency of the service that no accidents or mishaps of any kind were encountered.

No survey of the naval side of Canada's effort in the war would be complete without some statement as to recruiting. As already mentioned, the personnel of the *Niobe* and the *Rainbow* were mainly obtained from the Royal Naval Canadian Volunteer Reserve, and the same organization was drawn upon to furnish crews for the numerous smaller craft operating in Canadian waters. At the termination of hostilities the personnel of the Canadian Naval Service was as follows: officers and men of the Royal Canadian Navy, 749; officers and men of the Royal Naval Canadian Volunteer Reserve, 4,374. During the first two years of the war no organized effort was made to recruit men in Canada for the British navy. All the requirements of the navy could

at that time be met from volunteers in the Motherland, and recruiting in Canada was necessarily concentrated on the building up of the land forces. In 1916, however, the Admiralty sent Captain the Hon. Rupert Guinness to Canada to organize a recruiting campaign for the Royal Navy. Captain Guinness addressed public meetings in all the principal Canadian cities from the Atlantic to the Pacific; recruiting depots were established at Halifax, St. John, Quebec, Montreal, Toronto, Winnipeg, and Esquimalt; and altogether something over 1,700 men were secured for the Imperial Fleets overseas. In connection with these recruiting meetings, a message was made public from Admiral Jellicoe which helped materially to swell the number of volunteers.

"The officers and men of the Fleet which I have the honour to command," he said, "now look forward to seeing those men of Canada who have not hitherto been able to join the contingents from their Dominion for service on shore, come to sea to share with them the task of watching and guarding the wide sea-front of our Empire, a duty which it is our honour and privilege to have entrusted to our keeping. The task of the navy is to safeguard the coasts of the Empire, to protect the Empire's commerce, the passage of Imperial troops and munitions of war, a task rendered more difficult as time goes on. The immense expansion of the Fleet which these various duties involve, together with the inevitable losses which occur, necessitates a large increase in the personnel, and it is for this reason that I would invite the men of Canada to join us."

The recruits had to be between eighteen and thirty, of good character and physique, British subjects by birth, but needed no previous sea experience. Because of the much superior facilities available on the other side, the training was carried on entirely in England. The service was for the period of the war, and the

rates of pay the same as in the Canadian Expeditionary Force. Men who qualified as firemen got increased pay. Among many Canadians who helped in the very important work of securing recruits in Canada for the Canadian and Imperial navies, special recognition should be given to Æmilius Jarvis, of Toronto, J. K. L. Ross and C. B. Gordon, of Montreal, and Commodore Jonathan Rogers, of Vancouver.

Many British Naval Reservists living in Canada had already rejoined the service in 1914 and 1915. More than five hundred Canadians were given commissions in the Royal Naval Volunteer Reserve, and were employed in the British Auxiliary Patrol and other services; and large numbers of officers and men also enlisted in the Inland Water Transport Service, organized by the Royal Engineers for work in Europe, Mesopotamia, and some of the minor battle-fronts. Nearly six hundred probationary flight lieutenants were enrolled in Canada on behalf of the Admiralty for the Royal Naval Air Service, previous to the institution of direct recruiting for the combined Air Services through the Royal Air Force. In addition, over seventy surgeon probationers from Canadian medical schools were sent overseas for service in the Royal Navy. The honour of the Royal Naval College of Canada was upheld by over fifty graduates who served in Imperial ships in many waters, and four of whom lost their lives at the Battle of Coronel, on board Admiral Craddock's flagship H.M.S. *Good Hope*.[1] Altogether several thousand men from Canada joined the British navy during the period of the war.

Not the least important branch of Canada's naval effort had to do with the transport overseas of men and materials. The dramatic story of the Canadian Armada that took the First Contingent to Europe has already been told in an earlier volume.[2] The move-

[1] See Vol. II, p. 345.
[2] See Vol. II, p. 266 et seq.

ment of later contingents and reinforcements, with all their supplies and equipment, throughout a period of four years, while less romantic, is none the less an important part of the story. The problem of securing shipping to handle tens of thousands of men, guns, munitions, horses, with mountains of supplies and provisions, particularly after the United States had come into the war and were crying aloud for ships and ships and more ships, was one that taxed to the uttermost the resources of the Department of Naval Service. It was only made possible through the most efficient co-operation of this and other departments at Ottawa with the Imperial authorities and with other agencies involved in the great war network of the Allies. Naval transport officers at the ports of embarkation were made responsible for the inspection of all troop-ships and their accommodation, life-saving equipment, etc., and co-operated with the military embarkation officers in the shipment and landing of troops. The control of the movement of all these vessels in Canadian waters rested with the Naval Department, whose duty it was to arrange with the Admiralty for convoy, escort, and other precautions for the safety and despatch of the ships. Of some hundreds of thousands of troops sent overseas, and brought back, not a single man has lost his life through marine accident — a remarkable tribute to the efficiency of the service.

In connection with the transport of material, early in the war the services were secured of Mr. A. H. Harris, an officer expert in ocean and railway transportation matters, to take charge of the very important work of the Ocean Transport Service.[1] He was given the title of Director of Overseas Transport, and much of the success of this vitally important link in the movement of supplies from Canada to Europe was due to his organizing ability and tireless vigilance. Before the end of 1914 the matter of providing cargoes

[1] See Vol. II, p. 261.

for the many colliers returning empty from the fleet in North American waters was turned over to the Director of Overseas Transport. He was given control of the traffic inland, by rail or otherwise, its reception and storage at ports of shipment, the allocation of the cargo to the different ships, and stowage on board of the various materials so as to ensure the maximum use of the tonnage placed at Canada's disposal by the Admiralty. Early in 1918 a branch of the British Ministry of Shipping was established in Canada, and placed under the direction of the Director of Overseas Transport, resulting in even closer co-operation and increased efficiency in the overseas services.

Early in 1917 the rapid increase in the tonnage to be shipped, and the extension of Government activities to commodities hitherto handled by private effort, made the provision of further cargo space imperative. The policy of requisitioning space on all liners sailing from Canadian ports was adopted as the most convenient and efficient method of meeting the new situation. At first eighty-five per cent. of the cargo space on all liners was taken over by the Government at fixed rates. The remainder was placed at the disposal of the shipping companies, for the accommodation of private shipments of foodstuffs or other necessary war supplies. This arrangement was later modified by the force of circumstances till all the space available was taken control of by the Government. Arrangements were, however, made for the provision of space for approved shipments on account of private firms, so that undue hardships might not result from the requisitioning of all available ocean space. In actual practice the inconvenience did not become very serious, as Government supervision of trade had been extended to cover practically every branch of Canadian activities, whether foodstuffs, raw materials, timber, or manufactured goods.

This service from small beginnings grew into a very large undertaking. The average monthly export was: in 1915, 50,000 tons; in 1916, 170,000 tons; in 1917, 331,000 tons; and in 1918, to December 1st, 387,000 tons; or a total from January 1st, 1915, to December 1st, 1918, of over 11,250,000 tons of freight. The growth in tonnage was practically continuous, the largest months being October and November, 1918, when 1,300,000 tons were exported, about 1,000,000 tons being shipped from Montreal alone in these two months. This traffic originated in all parts of Canada and the Northern and Western States, and the work of organizing its transportation to the ports of shipment was very great.

The supply of fuel oil for the fleets in European waters became at one time a matter of grave anxiety. In July, 1917, at the suggestion of the Director of Overseas Transport, steps were taken to utilize the double bottoms of ordinary merchant vessels for the carriage of oil. During the first six months of operation no less than 167,055 tons were shipped from Canadian ports, practically all by this method. A very considerable saving in tonnage was effected in this way, particularly in view of the general shortage of tank steamers.

The timber shipments handled by the Ocean Transport Service were exceptionally heavy in 1916, the amount of timber exported being over 300,000,000 feet, and the rate of loading averaging for eighty ships one hundred and eighty-three standards per weather working day. In 1917 and 1918, owing to scarcity of tonnage and the extension of the work of the Forestry Corps in Europe, timber shipments were confined to small parcels forwarded on store transports, and particularly to shipments of silver fir and spruce for aeroplane manufacture.

Supply and repair work formed no inconsiderable part of the country's naval activities. It was centred

largely in the Canadian dockyards at Esquimalt and Halifax. These had been maintained by the Canadian Government in the condition in which they had been taken over from the Imperial authorities some years ago. Owing to their strategic positions they became immediately centres of great naval activity. The various machine shops and repair facilities were in continual use throughout the war, and their usefulness was extended by the purchase of modern equipment. At Esquimalt, in particular, large refits of many Imperial ships were undertaken, involving large operations. H.M.S. *Kent,* after the Battle of the Falkland Islands, was brought around to Esquimalt to repair the damage sustained; and the salvage operations on the Japanese battleship *Asama* were arranged for, and the ships subsequently refitted, at this British Columbian dockyard.

Owing to the proximity of Imperial dockyards in home waters and at Bermuda, and the large number of Canadian naval craft using Halifax as their base, no large refits of Imperial ships were undertaken in the Halifax dockyards. The large dry-dock at Montreal was, however, used to refit several large Imperial cruisers, and a considerable amount of repair work was carried out on Imperial vessels at Halifax.

The defensive armament of merchant shipping was carried out on a large scale at Halifax, St. John, and Montreal, both for Canadian and Imperial ships. A special staff of qualified officers and men was kept continually employed, and contracts for necessary structural alterations were entered into with qualified firms. The fitting of transports for troops, horses, and special cargo was also undertaken in Canada, under the direction of the Department of Naval Service. This involved also the loading and transportation overseas of about six hundred launches, tugs, and scows, special arrangements having to be made for lifting them and stowing them on board. These craft were all success-

fully shipped overseas without loss through marine accident.

This is not the place to attempt to describe the disaster at Halifax on December 6th, 1917, except to note the fact that it involved incidentally very serious damage to the dockyard. Temporary arrangements were made so that the necessary work could be carried on throughout the period of the war; and a new scheme is being drawn up for the provision of facilities that will make Halifax the site of a thoroughly modern dockyard.

The supply services maintained in Canada, in connection with the naval operations, are too important to overlook. Not only did they provide all the requirements of the Royal Canadian Navy, but also looked after the needs of Imperial and Allied ships in Canadian waters. Provisions, and to some extent clothing and naval stores, were also furnished by Canada to H.M. Dockyard at Bermuda, and at Hong Kong, as well as to ships based on these naval stations. Large supplies of victualling stores were also shipped from Halifax Dockyard for the provisioning of fleets in European waters.

APPENDIX II

CANADA'S MOTOR MACHINE GUN CORPS

No history of Canada's part in the Great World War would be complete without the story of the independent units which, though often fighting apart from the Canadian Corps itself, were all-Canadian. Of these, one of the most striking was the Canadian Motor Machine Gun Corps. Like Topsy, the Motor Machine Gun Corps just "growed." Fortunately when the crisis came and the unit could be used to advantage, it was at full strength, and won the highest praise for its effective work from the commanders of the French, Imperial, and Canadian corps with which it co-operated.

The Motor Machine Gun Corps originally consisted of the Sifton Battery, which sailed with the 1st Division to England in September, 1914, and trained and fought with that division in the early days of the war. The cost of organizing this unit was defrayed by Sir Clifford Sifton, formerly Minister of the Interior. Another unit was the Borden Battery, named after the premier, but organized in Montreal and financed by Sir Vincent Meredith, Huntley Drummond, and other Montreal and Cobalt men. Under command of Major Eddie Holland, V.C., who won his decoration in the Great Boer War, this unit got its first taste of active warfare at St. Eloi in March, 1916. Two other motor batteries,—the Yukon Battery, raised and paid for by Yukon Territory, and the Eaton Battery, financed by Sir John Eaton of Toronto,—after severe training in England, went over with the 4th Division.

There were eight armoured cars in the equipment

of these combined batteries when they arrived in France. Other cars were condemned by Imperial inspectors and were left to rust on Salisbury Plain. How useful the eight proved is shown in the record of the corps; but they saw strenuous days, and only four of the cars were left—and these in a badly battered condition—at the signing of the Armistice.

In the later days of their training in England the motor machine guns were allotted to roving commissions in the event of an invasion by the Germans, which was then thought a possibility. They were given trial trips over the shore roads of Yorkshire, Norfolk, and Kent, and their mobility and general efficiency brought them much praise—and a delay in their despatch for France.

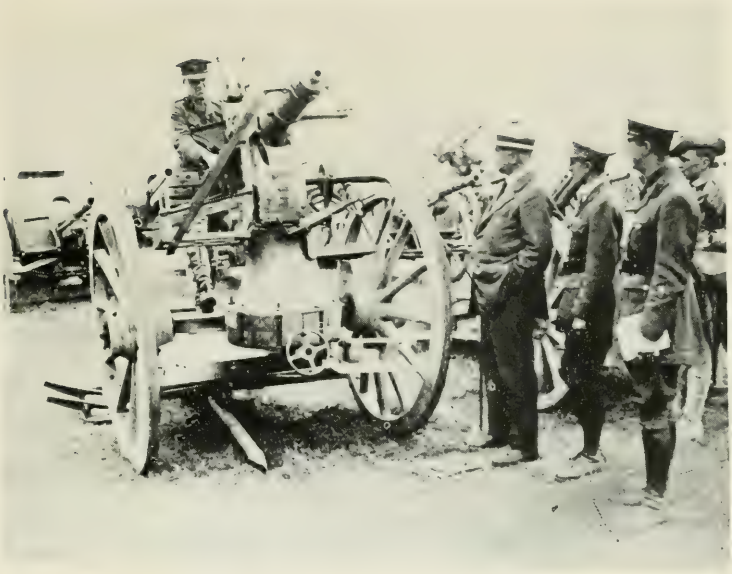
In the June show at St. Eloi, in 1916, when the cry for more machine guns was sent out, the batteries of the Sifton unit did most effective work, although it was impossible to use the armoured cars, owing to the shell-wrecked roads and the network of trenches. But with the infantry in both assault and defence were the machine-gun experts, and their value was quickly recognized. When the battered Canadians went out to well-earned rest in August, the various machine-gun batteries were organized, the Colt guns which they had brought from Canada were changed for the new type of Vickers, and they were given enough transport to make them a really mobile, independent unit.

They swept south into the Somme affray, and here they tried a new machine-gun "stunt," invented by their commander, Lieut.-Colonel Raymond Brutinel, harassing the Germans with indirect bullet fire, something that had never been conceived by Imperial or German experts. By it they were enabled to sweep the ground ahead of the attacking Canadian infantry with a rolling barrage of machine-gun bullets, even more deadly than that of the shells. It was because of barrages of this class, firing by compass on posi-

tions that could not be seen, but where concentrations of the enemy were reported by the infantry, that Courcelette and the famous Sugar Refinery were held against counter-attack. The assaulting Germans faded away before machine-gun barrages, created by weapons that it was impossible to locate. Almost the same thing happened at Zollern Redoubt and Regina Trench, although the Machine Gun Corps did not come through these affairs without a goodly proportion of the losses the Canadians suffered in the attacks.

Then came the move to Vimy Ridge; and it was not long before the machine guns were pulling off raids with the co-operation of the infantry. Again the Germans were puzzled and surprised by the indirect machine-gun fire. The absence of artillery lulled the enemy into a sense of false security and the corps succeeded in cutting out many of their trenches, thus obtaining valuable information. In the main attack on Vimy Ridge on April 9th, 1917, the Machine Gun Corps was at a strength of about two thousand, with several scores of guns and its own system of ammunition supply. It was split up among the various divisions, its batteries advancing with the attacking infantry, fighting duels with what German machine-gun nests remained on the ridge. All through the garrisoning of the ridge the machine-gun crews worked like Trojans, making redoubts and advanced posts which promised the enemy a warm reception if he ever decided to attempt to recapture the coveted ridge. In August the Motor Machine Gun Corps, still without its armoured cars, assisted at the assault on Hill 70, firing more rounds than had ever been fired by such a unit before and practically annihilating a battalion of the Prussian Guards which had formed for a counter-attack.

October found the Motor Machine Gun Corps with its cars and transport once again in the Ypres salient. In the first stages of Passchendaele the armoured cars



A GERMAN POM-POM
Captured by the Canadian Motor Machine-Gun Brigade

CANADIANS ON THE WAY TO BATTLE
Machine gunners in armoured cars protecting the advance
Canadian Official Photographs

did good work by whirling along what remained of the Langemarck and Wieltje roads and engaging the cement redoubts with which the high ground was dotted. Gradually, however, the roads were churned up by German shells and once again the corps was fighting with the infantry. Three of the batteries, with eight guns each, got within two thousand yards east of the battered town, and all through the afternoon played havoc among the Germans manning the main defences of the position; but late that evening the enemy's heavies got their range, and practically every gun was put out of action and casualties were heavy. In the last phase of Passchendaele the Borden and Yukon batteries fired fifty thousand rounds point-blank into the ruined town at less than eight hundred yards' range, assisting tremendously the entry of the victorious infantry. Six Military Crosses and over a score of other medals were awarded officers and men of the machine guns for effective work in this battle.

After Passchendaele the Motor Machine Gun Corps was given a chance to tune up its work with the armoured cars, although there was always one section of the unit in the line, again in front of Lens and of Arras. In March, 1918, the corps was completely reorganized, being allowed an almost unlimited supply of Vickers guns and greatly increased transport. In addition to its eight armoured cars it had several batteries which could work with fast trucks and could be dismounted for use in open warfare. The training and organization were just completed, Colonel W. K. Walker, D.S.O., from the Cavalry Brigade Machine Gun Squadron, taking command, when urgent calls for it were made by the Fifth Army on March 22nd, the front at St. Quentin, just taken over from the French, having been broken. It was at this time that the real usefulness of the mobile Canadian Motor Machine Corps was proved. Lieut.-General Currie himself supervised the sudden mobilization of the unit; the

batteries were hurried back from the front line, and that afternoon, with hundreds of thousands of rounds of ammunition, fully equipped and with rations for several days, the long convoy started for Amiens to assist the hard-pressed Fifth Army. General Gough met them on the main road at Villers-Bretonneux, and to the officers stated that they were his last available reinforcements and that the situation was extremely serious. He explained that it was a battle for time, as the French were rushing in troops to assist him, but that machine guns were needed to fill the many gaps that had been made in the British line.

The long line of armoured cars and armed motors, their gun crews fresh and cheering, were given right of way by the tired, broken Imperial infantry, which had fought stubbornly for two days. It was hardly dusk before they were in the front line and fighting. The armoured cars started forays down the well-made roads, cutting up German units who were attempting to consolidate. At the cross-roads at Villers-Carbonell they fought a pitched battle with a whole German regiment, spraying it with bullets until it finally broke and ran. Some batteries made their way up the main Roye road, dispersing garrisons from the armed trucks in the little villages. These garrisons held on desperately, fighting against time, until finally their own cars rescued them and they fell back on the next vantage point. The quickly shifting machine guns baffled the enemy, who thought the British strength in front was much greater than it was, and more time was gained.

Bethonvillers, Roye, Bouchoir, and Le Quesnel were held for hours after the Imperial infantry had retired, and then orders came for the Canadians to fall back and hold the valley of the Somme until the Imperials could reorganize and make a final attempt to save Amiens. On March 24th the motor machine guns were ordered to Cléry with instructions to hold on at all costs. The Canadians found the Germans were

strongly entrenched in the town, but, undaunted, they took up positions on the north bank of the Somme and by concentrated fire kept the Germans from crossing the river. The enemy brought up field-guns and shelled them, but the quickly moving machine-gun batteries dodged the worst of the barrage and, when the Germans attacked, beat the enemy off with terrible loss. Casualties on the Canadian side had also been heavy, the gun crews suffering particularly from snipers. All through that night, with the assistance of some Imperial infantry which had been rallied, they held on to the position. In one attack the Germans got within forty yards of the Canadian position, but were beaten back. Then, there being no prospects of any reinforcements reaching them, the gallant band retired to where their armed trucks were waiting and escaped with their wounded. They had held up a fresh German brigade; but what their losses were can be gauged by the fact that out of one Borden battery of fifty only eight were survivors.

The Motor Machine Gun Corps was then sent to Hebecourt, a little village on the Amiens-Paris road, to refit and establish headquarters. The line was being re-established, but the danger of the Germans gaining Amiens had not passed. On the morning of the 25th the armoured cars and several batteries were hurried to the southern edge of Cizancourt, where the line of the Nineteenth (Imperial) Corps had been pierced. On the way a squadron of enemy planes swooped down and engaged the column, getting the worst of the battle. They lost one plane and, taking discretion as the better part of valour, fled to their own lines. The enemy now knew of the presence of the armoured cars and continually swept the roads with high-explosive shells, but all the gun cars got through unscathed. One of the Sifton cars found a battalion of the Sherwood Foresters in difficulties owing to a machine-gun nest in a clump of bushes, and decided to go to its assistance.

It sauntered down the road with all the confidence of a tank and engaged the enemy guns, finally clearing the copse. But immediately the enemy launched an infantry attack on the armoured car, which could not turn on the narrow road, and soon the crew were firing point-blank at the Germans whilst the latter attacked it with hand grenades. By clever work the car was turned round finally, and it departed over a hill, spraying the discomfited enemy in its parting. Attacks on Licourt and Omiecourt were held up to the last by Canadian garrisons, which were finally taken away under heavy fire by the armed trucks. Again at Cerisy and Hamel the cars were in action, rushing along the macadamized roads and firing on the advancing enemy at from four hundred to six hundred yards. They had become such a terror to the enemy that the Germans often broke and scattered for cover when they suddenly made their appearance round a turn in the road.

Roaming the territory from Villers-Bretonneux northward all during the day of the 28th, the armoured cars did terrific execution and had marvellous luck. Rosières and Vrely were entered at full speed and the German advance parties driven out; but at night, knowing that large German forces were behind the cars, they cautiously made their way back to Gentelles, where an Imperial brigade and newly arrived French troops had established an organized line. On the morning of March 28th the corps was told to take a day's rest, and reinforcements which had been sent from the Canadian corps were picked up. General Gough and Brigadier-General Carey, who commanded the rallied remnants of the Fifth Army, both named the Canadian batteries in orders for the efficient services they had rendered. Lieut.-General Currie had sent them an encouraging message which told them that the Canadian Army Corps was watching their stubborn defence with admiration.

On the 29th the cars and batteries were out again. The Germans had broken through at three places,—Hamel, Lamotte, and Marcelcave,—but while the Imperials had been driven back their line was still intact, and on the arrival of the Canadian machine guns heavy losses were inflicted on the enemy, who was attempting to press still nearer Amiens. In the evening information was sent to the Canadians that the enemy would probably attempt to cross the river Luce that night and that they were to concentrate all efforts against this. By this time the Canadians' reputation as machine gunners had been established beyond doubt and they had been given carte blanche to draw on any ordnance of the Fifth Army that remained. Over one hundred new guns were obtained and placed in positions facing the river Luce from every angle. All night long heavy fire was kept on the woods where the Germans were concentrating, and it was not until dawn that the enemy started his great attack. Terrific execution was done by the Canadian gunners shooting across the valley at ranges of from four to six hundred yards. Imperial infantry brought them up hundreds of thousands of rounds of ammunition. As soon as guns got too hot, new ones were rigged up, and all day the Germans were mowed down until, late in the afternoon, they sullenly gave up the attack. It was the turn of the tide. "For God's sake hold on another day and Amiens will be saved," was the message General Carey sent to the Canadians and Imperial troops who were fighting so desperately. They held on, and on April 2nd the Machine Gun Corps was moved back to its headquarters and rest, although one battery volunteered and went into action with the Canadian Cavalry Brigade, which had been hard pressed at Morisel Wood. Until April 8th the men of the Motor Machine Gun Corps took their turn in the new trenches which had been established and the cars patrolled the roads from Villers-Bretonneux to Hangard; then, their

ranks sadly thinned, with many comrades gone, but content that they had fought a good fight, the unit returned to the Canadian Corps farther north, making their headquarters at Verdrel.

The work of the Canadian Motor Machine Gun Corps had attracted the attention of the Imperial Staff, and incidentally had solved for it the problem of how to protect a flank during open fighting. The lesson was not lost, and immediately the corps was brought to full strength and given strenuous, intensive training, which stood it in good stead in the beginning of the great offensive of August, 1918. Colonel (now Brigadier-General) R. Brutinel, C.M.G., D.S.O., was placed in charge of what was called the Canadian Independent Force. There were two brigades of motor machine guns, which included the armoured cars (one had been destroyed in March), two sections of trench mortars which could be fired from heavy trucks, and the Canadian Corps Cyclists. They were to co-operate in every way with the Canadian Cavalry Brigade, which was again mounted and at full strength.

The battle-front allotted to the Canadian Corps, which was to be the spear-head of the Allies' attack, extended from just south of Hourges to the Amiens-Chaulnes Railway line, west of Hangard and through Hangard Wood, altogether about eight thousand yards. The main part of the right boundary was along the Amiens-Roye road; and it was here that the Independent Force was to hold the thinly protected flank until the French First Army came up and consolidated. The motor machine guns followed through that surprise attack on August 8th with the Canadian Cavalry Brigade; immediately the engineers had fixed some sort of bridge over the great gaps that had been German trenches before our sudden bombardment. The ground, once the front line was passed, consisted of bare slopes exposed to German observation, but, beyond narrow defiles which occurred at intervals, there

was nothing to halt either the cavalry or the cars. They swept ahead of the victorious infantry and cleared out scores of German headquarters and rallying points; they even obliterated the crews of what German batteries remained. For the whole of the first morning the enemy did not have a single heavy gun working against us.

The cavalry and a few tanks which had managed to scramble through the muddy bed of the Luce struck across country westward to Beaucourt, Caix, and Rosières, where concentrations of German troops were reported. The Motor Machine Gun Corps spread crews out on each side of the straight, tree-fringed Amiens-Roye high-road, firing across level country at the Germans, who were trying to hold back the French from little villages such as Villiers and Mezières. Driving hard along the *pavé* roadway, running down isolated machine-gun crews and practically exterminating them, the armoured cars spread terror among the Germans, who were attempting to rally. In the little wooded village of Maison Blanche, which had been a German brigade headquarters, they found a whole regiment of German reserves and ploughed through them, scattering them in such terror that the cars were able to turn again and rake them a second time. On the other side of the main road, at Beaufort, one car came across the rear of a strong German machine-gun redoubt built into a chalk pit, and wiped it out just as the Canadian infantry charged on it. The ubiquitous machine guns of the Canadians were everywhere, sometimes in front, often behind the enemy. All through the first afternoon the French troops bravely attacked Fresnoy, a little village the Germans had heavily fortified, and always they were beaten off. The gap in the forward advance threatened to hold up the general scheme until the motor guns, suddenly finding themselves in the rear of the enemy, swooped down on them, creating such a diver-

sion that the French, with a cheer, carried the village at the point of the bayonet, and what Germans remained, rather than face the withering flanking fire from the armoured cars and trucks, fled across country to the Canadian infantry and surrendered.

Advancing further along the main road, with the French on their right, the armoured cars and their auxiliaries reached the front of Quesnel, where the enemy had collected the remnants of a brigade to make a stand. The cavalry had warned the machine guns of the concentration, and while the French dashed round to the left of the road, the armoured cars and trench mortar lorries crept up under the hill and rained death into the gathered Germans. For the first time in the war the Canadians fired 6-inch howitzer shells from heavily built trucks, and these demoralizing bursts decided Quesnel, as they did several other engagements in the last months of the war, in our favour. From the French alone, for these joint battles, the motor machine guns obtained eight *Croix de Guerre* and several *Médailles Militaires.*

The Canadian line well established far ahead of what had even been hoped, and the French consolidated on their right, the motor machine guns and their auxiliary units were withdrawn for a much needed refit. The German artillery was recovering and had made several direct hits on the well-beloved cars which necessitated several days in the shops, but by August 24th they were ready for action again and out in full force at Tilloy les Hermanville, in front of Arras. Acting with the Canadian Light Horse and the 10th Hussars, the armoured cars and machine-gun trucks fought their way along the Cambrai road while the Canadian infantry assaulted and held Monchy le Preux. Heavily laden trucks with bridging supplies followed them, for this was a country overrun with small streams. At the crossing of the river Cojeul, where the Germans had blown up the bridge, the bat-

ARRAS: ALL THE HUNS HAVE LEFT OF THE ONCE BEAUTIFUL HÔTEL DE VILLE

THE MURDERED ORCHARD

Canadian Official Photographs

teries spread themselves along the banks and poured in a terrific fire, while the cavalry swam the river and gained a footing close up to the entrenched enemy. Finally a temporary bridge was built and the cars swept through the advanced German positions. Both cavalry and cars caught thousands of the enemy in the open and inflicted terrific losses. Pressing on, and closely followed by the infantry, who were now threatening to break the Drocourt-Quéant switch line, the armoured cars and howitzers met with desperate resistance at Villers les Cagnicourt, where the Germans had felled huge trees and thrown them across the road. In spite of German artillery fire, these were cleared by the undaunted Canadians, and another dash, which actually took them behind the German reserve trenches, was made. Night was coming on and casualties, both in men and trucks, had been heavy. Twenty trucks, including two mounted with trench mortars, had been put out of action. It was decided to retire to the Cojeul river until daylight; and this the depleted but cheery Independent Force did. They brought back much valuable information, which allowed the infantry to better their positions during the darkness, and after hard fighting to break this famous section of the Hindenburg line.

Harassing the enemy whenever there was an opportunity, the Independent Force enjoyed what they called a quiet time until the preparations came for the last phase of this great attack, — that against the Canal du Nord line, Bourlon Wood, and eventually Cambrai itself, that German citadel which had cost both French and British so heavily in attempts to capture. From October the 6th to the 15th the motor machine guns played the same rôle they had done in front of Amiens and kept the Germans off the flank of the 2nd Division, then going through some of the hardest fighting of its existence. Their batteries went into action with the Canadian 6th Brigade and gained ground inch by inch

until confronted by the wide canal. It was decided that night to make a desperate attempt to seize the bridges before they were blown up by the enemy, and to rush the Independent Force, and what cavalry was available, over to hold on until the infantry could gain the enemy's side of the canal. The objective of the machine guns was Thunn St. Martin, a village on a high knoll that commanded the crossing of the waterway. Two of the bridges were taken, and the machine gunners began a battle with the Germans which ended in the Canadians getting the high ground. Then the infantry swarmed over.

Brutinel's Brigade continued the attack on October 8th, their cars doing splendid work along the Cambrai-Salzoir road. Several bridges had been blown up, but Canadian engineers, under the protection of the machine guns, repaired them and prepared the way for a brilliant Canadian cavalry charge, which finally cleared the enemy out of the section and left us free to devote attention to Cambrai itself.

By this time the Germans were paying particular attention to the work done by the mobile Canadian machine gunners and they had established what they called Marksmen Machine Gun Companies composed of men picked from various line regiments. These also were mounted on trucks, but in the pitched battles that came off did not fare well with the confident Canadians.

With Cambrai taken, the Canadian Corps turned its attention to Douai and the victorious fighting which ended only with the Armistice. It developed again into a different class of warfare, and the Independent Force, including the armoured cars, was temporarily split up into sections for each division. Again the cars proved of sterling worth. They were always in continuous touch with the operation in hand and in close liaison with the officer in charge of the operation. They circled the various roads where the Germans were at-

tempting to gather, and outflanked small machine-gun nests and positions which had been holding up the infantry, causing severe losses to the enemy, not giving him time to re-establish himself, and greatly assisting our advancing infantry.

October 19th found them south of Douai, where they prevented the Germans from springing the mines on the main road of the Canadian advance. Near the Marais de Beauvages they charged a group of the enemy mining the only bridge which gave a way through the swamps, drove them off, and held the position four hours until the Canadians came up in force. After the sweeping forward of the Canadians, the armoured cars and their brethren of the mounted howitzers were organized again as pursuit troops, and, with a detachment of Canadian light horse, corps cyclists, and engineers, they cleared Fein, Courcelette, Goeulzin, Le Raquet, Villers au Terte, Cantin, Rouquort, Aubigny au Bac, and Bugnicourt, all possible holding places for the enemy and all filled with enemy machine-gun nests. They protected the engineers while the latter repaired the bridges across the small streams and the canal that had been blown up, and they tested the roads and villages for mines and "booby" traps.

Following right up with the victorious Canadians, the motor machine guns got in their last heavy fighting along the Valenciennes-Mons road. Wherever there was a handy cross-road that would allow them to manœuvre, they drove V-shaped wedges into the German front, and on that last great day, when the order of the Armistice went through, the scarred steel-clad cars and the hundreds of heavy trucks that had been with them through their bitter fighting were on the fringes of Mons, "waiting for something to happen." They had always been where something was happening.

The work of the Motor Machine Gun Corps so im-

pressed the Imperial authorities that the question of having such a unit as a permanent part of an army is seriously discussed. The Canadian Militia Council decided to retain the section as part of the peace strength of the Dominion Forces.

APPENDIX III

THE CANADIAN CAVALRY BRIGADE

The usefulness of cavalry in modern fighting has been one of the questions of the Great World War, and it is still undecided to what extent the "cavalry of the air" has taken the place of the old mounted men. In the fateful days of the autumn of 1914 the British cavalry did well their glorious task of retarding the advance of the ponderous German infantry machine. Mons and Le Cateau will ever remain landmarks in British history. And by a strange coincidence, in the locality of those brilliantly fought battles, the cavalry again came into the limelight in the final days of the war, although this time it was a breed of men strange to European military horsemanship. The Canadian Cavalry Brigade, carrying the traditions of their valiant deeds in the Great Boer War, finished their splendid roster of history in the Great World War by charging victoriously over the very ground at Le Cateau, where, in 1914, Britain's best horsemen died playing the part of a forlorn hope.

Once or twice, notably during the first German retreat on the Somme and in the later British attack at Cambrai, — which unfortunately failed, — the mounted regiments showed their value well. During the wonderful, victorious months that ended the war they again came into their own and were invaluable. The Canadian Cavalry Brigade and the Canadian Horse Artillery had many adventures apart from Canada's main corps. They took them, at various times, through all five of the Imperial cavalry divisions, and whether in desperate fighting as rear-guards

or breaking the enemy's chances of concentration after a well-won battle; whether competing in the rivalry between all the Allied mounted units which marked "resting" days in safe places, or parading in paint and polish so dear to the cavalry leader's heart,— the Canadians always held their own. In sports they gained second place at the Allied gymkhana. In jumping they tied for first place with Portugal and lost in the final by one point with a Canadian-bred horse. They cleaned the whole Allied board for the smartest and most efficient transport, with the famous Life Guards and Scots Greys against them. But it was in fighting, both mounted and unmounted, that Canada will be most pleased to hear that they added lustre to their spurs won so well in South Africa.

Being for the most part well-trained regiments, keen and fully equipped, the main portion of the Cavalry Brigade was able to sail for England in September, 1914. It was composed of Royal Canadian Dragoons, Fort Garry Horse, Lord Strathcona's Horse, Royal Canadian Horse Artillery, Mounted Machine Gun Squadron, Seventh Canadian Field Ambulance, and a veterinary section. For a time the men were dismounted and were trained with the 1st Division, but in December they were again given their horses and were used in France as a unit under the command of Brigadier-General J. E. B. Seely, C.B., a former British Secretary of State for War. After the Second Battle of Ypres the brigade was again separated from its horses and did good work as infantry just to the south of the 1st Canadian Division, notably at Neuve Eglise and Festubert. Again the brigade was given its mounts, and this time was attached to the 5th British Cavalry Division, replacing an Indian brigade which had been sent to Gallipoli.

From then on the Canadian horsemen tasted of the strictest British cavalry training and passed through the severe test in such fine fashion that they were

Canadian Official Photographs

THE CANADIAN LIGHT HORSE AND THE CANADIAN HORSE ARTILLERY GOING INTO ACTION

among those chosen to "follow through" in the operations then contemplated on the Somme. The Canadians went into action south of Bazentin-le-Grand like veterans and swept into the German reserves in splendid style. They were close friends with, and keen competitors of, their twin brigade of Indian horsemen; and the raids of those two brigades on the retreating Germans struck terror throughout the back areas. It was mentioned in German orders that the Indians "never took prisoners alive and followed the example of the Canadian cavalry, who sometimes scalped those who fell into their hands."

With this little flurry of cavalry work completed, the brigade was given a long period in infantry work; and all through the late summer of 1916 they were employed in building roads, railways, and trenches — always under observation and fire from the German guns.

In the later months of 1916 the Imperial authorities regarded the newly invented tank as so perfected that it might be used in the next great attack. Cavalry was again needed to work with this most modern of destructive machines; and again the Canadians were given their mounts, much to their joy getting back their individual horses. They whirled into action with the new juggernauts of war at Delville Wood, and, although their feats did not stand out particularly, the sabring of a German battery crew brought hope to cavalrymen generally and let the Higher Command know that horsemen still had their uses.

With winter all chances of using the brigade as horsemen seemed to have passed and the men were sent into the trenches, taking their usual turns with the dismounted Imperial cavalry regiments. They held long lines of trenches south of Peronne and towards St. Quentin, which were regarded as "easy," for if the Germans captured the position they occupied they would merely create a dangerous salient for them-

selves. In these days the Canadian cavalry, though far from their friends in the Canadian Corps, followed their example in raiding, and even taught the Indian native cavalry, which held the line on either side of them, the tricks of successful forays. With little of event, taking two weeks in the front line and one week in rest, the Canadians passed the winter. At a strategic point a short distance behind the British lines was the large cavalry camp, and the Canadian horsemen were allowed to take care of their own steeds between the times of holding the front line.

Then came March, 1917, and with it the unexpected and surprising retirement of the German line in front of Peronne. The Canadians had just come out of the front trenches and were immediately rushed to their horse lines, mounted, and thrown back into the fray. It was bitterly cold weather and sleet storms aided them as they pressed through and got into strong contact with the retiring Germans. Ypres, Etricourt, Equancourt, Longavesnes, and Guyancourt fell to the Strathcona's and the Fort Garrys, and they were able to prevent the retiring enemy blowing up many of the small bridges and cross-roads to impede our advancing infantry. The Royal Canadian Dragoons, in true cavalry style, rounded up a German brigade staff in Etricourt Wood and took them prisoners. Thousands of French villagers who had been for nearly three years under the German yoke were released, and the general cry went up for more cavalry. Cavalry had been found useful. But, unfortunately, the Imperial cavalry was pressing forward dismounted, envying their lucky Canadian comrades, and by the time French cavalry was rushed up, the German line had been re-established and the retirement ended. It was in this brilliant thrust that the fringes of the famous Hindenburg line were reached.

April found the Canadian regiments again at full strength and back at their new places in the line as

a dismounted force, this time near Hargicourt. Again it was an "easy" section for them, down in that maze of trenches that faced St. Quentin. No Man's Land was two thousand yards across, and the cavalry leaders actually used to ride their horses out on patrol to the German wire every night. The Germans gave up all claim to this territory, even up to their own barbed wire, and would not meet the Canadian machine-gun patrols. Things were too tame for General Seely, and towards the end of May he gave the virile commander of the Fort Garry Horse, Lieut.-Colonel R. W. Paterson, carte blanche to go ahead with what was, up to that time, the largest raid ever attempted on the western front. Over one thousand yards of the enemy's front-line trench to a depth of six hundred yards, with little or no artillery preparation, was cleaned out by dismounted men from Strathcona's Horse and the Fort Garrys. The enemy lost an entire company of the 4th Imperial Footguards killed, including its commander; his entire trench system was blown up systematically, and over a dozen of his dug-outs and a score of machine-gun posts were destroyed. His losses were estimated at well over three hundred; five unwounded prisoners were brought in over the mile or more of hinterland and three uninjured machine guns. One officer and one man only of the cavalry brigade were killed and one was slightly wounded. Their friends of the Canadian Corps were following their fortunes, and their good work called forth a warm congratulatory message from General Currie. Others were received from the commander-in-chief and from the French commander who had the army to the south of the Canadians.

Three months later the Canadians, after having undergone a special course of cavalry training in back areas, found themselves again in the same trenches at Hargicourt. Lieut.-Colonel Paterson, then acting commander of the brigade, daringly decided that he

would attempt another similar raid. This time the Royal Canadian Dragoons were to be given the place of honour. It was known that new German troops from the Russian front had taken over the trenches, and Colonel Paterson promised British Intelligence all the facts they wanted about them. It was my good fortune to be with the cavalry at this time. The raid was an exact duplicate, excepting in the number of men, of the previous successful one. In view of the freshness of the German troops, it was decided to double the strength of the raiders. At the zero hour the Imperial artillery, aided by the Canadian Horse Artillery, which brought its guns almost into the Canadian front line, concentrated its fire on the same stretch of trenches which suffered in the first raid. By bursting a heavy 12-inch mortar ahead, the path through the barrage was shown to the Canadian raiders, and they were able to keep as close as ten yards to the barrage, so correct was the shooting of the Imperial batteries. There was no wire left to cut and the raiders swarmed into the German trenches, destroying an advanced enemy machine gun on the way. The front line was heavily manned by Germans, and the Canadian raiders blocked each end of it by blowing up the parapets and then raced away up the communication trench to where the German dug-outs were. They carried with them long tubes filled with deadly ammonal explosive, and after a sharp challenge one of these tubes was put down each entrance. Few Germans came out of the dug-outs alive. Phosphorus bombs were scattered in the underground tunnels, making a fierce conflagration. From one of the tunnels rushed half-a-dozen crazed, burning infantrymen, who were shot to put them out of their misery. Meanwhile, like clock-work, the Imperial guns were pounding the enemy congregated in the front-line trench awaiting an expected attack. Hundreds were killed in this way. Then the signal went up for the barrage

to stop and the victorious raiders jumped on the remnants of this garrison from the rear.

"Most of the crews of the machine guns put up a splendid scrap," explained a dragoon officer to me. "They fought to the death, but our men were determined to have the machine guns as trophies."

In less than an hour after the start all the Canadians were back in their own trenches. Beyond a minor wound or two there was not a single casualty during the raid, but unfortunately one man was killed by a stray bullet as he reached our trenches on a stretcher. Five trench mortars were destroyed by the raiders, and among the prisoners was a German captain who had just obtained his first sight of the western front.

The next great adventure of the Canadian Cavalry Brigade was in November, 1917, when the surprise attack was made at Cambrai. The Canadians were chosen for an astonishingly bold project which was to end in the capture of the German army commander in his own headquarters. The main project failed, but the Canadians came out of the Cambrai battle with enhanced reputations for daring cavalry work and a Victoria Cross, one of three that the brigade won during the war. The three Canadian regiments followed the tanks as they climbed the slopes of the Hindenburg line south of Havrincourt Wood. They disposed of what machine-gun nests the tanks had left active and, once through the barbed wire, made a wonderfully inspiring charge over the rolling country down to the St. Quentin canal, cleaning out the strongly held villages of Marcoing and Masnières, and driving back on the Imperial infantry thousands of German prisoners.

The Fort Garry Horse had been chosen for the abduction of the German commander, and a squadron of this famous regiment was to ride completely around Cambrai, joining up with other British cavalry on the

north side. The canal was reached, and it was found that the only bridge — at Masnières — supposed to be intact had been broken down by the heavy tanks. The enemy were making a desperate stand on the far side of the waterway. With the assistance of French civilians, German prisoners, and the few engineers who had got that far forward, Major W. K. Walker, of the Mounted Machine Gun Squadron, and Major Sharpe, of the Strathcona's, built a temporary bridge which enabled the Fort Garry Horse to cross. They dashed through the German infantry, and then disappeared into "the blue." The remaining Canadian horsemen kept the way open for the 3rd British Cavalry Division, which was coming up fresh, to sweep through. Unfortunately, the Higher Command had heard that the bridge was down and not that a temporary one had been constructed and was ready for the passage of troops; and the whole enterprise was called off. But the Fort Garrys could not be recalled and their adventures resulted in one of the finest cavalry feats in the war.

The squadron pushed half a dozen miles into the German position, spreading panic wherever they appeared and adding chaos to the enemy's retreat. Small parties of German infantry coming up to support were ridden down and sabred; but the supreme adventure came when the gallant band reached the outskirts of the village of Rumilly. Charging up a slope, they came full tilt on a German battery firing over open sights. Without hesitation, Lieutenant H. Strachan, M.C., who commanded the Canadians, gave the order to charge and the horsemen rode down the battery crew, killing every man with their sabres. Finding the shelter of a sunken road, the Fort Garrys rested, a bit anxious at not having received any communications from their brigadier, but finally a messenger reached them with the news that the main event had been called off. Disappointed, but un-

Canadian Official Photograph

CANADIAN CAVALRY CLIMBING A STEEP HILL IN FRANCE

daunted, though knowing they were going to have desperate fighting to get back, the little band of about sixty stampeded their horses further into the German lines, and as dusk approached, with drawn sabres, started back on foot for the canal. Half a dozen small parties of German infantry were met and defeated in short, sharp fights, and they were within a few hundred yards of the canal when a large body of Germans was discovered. A young Montreal officer named Cowan, who spoke German, taunted the German guard which stopped them with "having their wind up," and as the enemy detachment came forward the Canadians sprang on them and slashed their way through to where the rest of the cavalry were still holding a way over the canal open for them. Over four hundred prisoners had walked into the Canadian lines, declaring they had been captured by the daring Fort Garry squadron. Lieutenant Strachan for this act was awarded a V.C., but he sustained wounds which blinded him.

Ten days later Lord Strathcona's Horse did a brilliant bit of work, driving the enemy back to Villiers Guislan and establishing touch with the Guards' Division at Gauche Wood. On the night of February 12th-13th, 1918, the Royal Canadian Dragoons made a dashing raid at Ascension Wood, killing or capturing a company of the 4th German Footguards.

The British dash for Cambrai on March 21st was shortly followed by the famous break in the British Fifth Army line. On March 22nd the Canadian cavalry were again dismounted and held in readiness to support the hard-pressed Imperial infantry. Two days later the Canadians found themselves at Berlancourt. Here they were ordered to push forward to Cugny, south-east of Ham, in support of the infantry line which had left a gap open at that point. On their way they came across their remount section with enough horses, and by clever cavalry work, in con-

junction with famous Imperial regiments, they re-established the line from Beaumont to the south. On March 24th all three regiments charged into thousands of Germans who had surrounded the remnants of two British battalions and enabled them later to escape to Villeselve. As a new French army appeared, the cavalry continued to cover the retirement of the worn-out British infantry.

On March 25th the Canadians bivouacked north of Lagny. The call for troops coming, they joined forces with the French and charged with the French troops, driving the enemy back from the banks of the Nord canal, where he had gained a footing. Again mounted, the next morning they rounded up the groups of Germans who had made their way across the wide canal.

Lieutenant F. M. W. Harvey, V.C., of Lord Strathcona's Horse, rode forward with a patrol to Fontaine and charged the village from the German side, taking prisoners three times the strength of his squadron. The French had planned an attack for the same time, and when they arrived found the young Canadian in possession. Confident that Harvey's party were Germans in British uniforms, they arrested them, and only released them when French Headquarters investigated. For his brilliant work in this affair Harvey gained the French *Croix de Guerre.*

From this time on for several days the Canadians were attached to the French cavalry, making harassing raids into the advancing Germans as far south as Laon. Then they were returned to the still hard-pressed Amiens sector, where, in what is regarded as the most famous cavalry action since Balaclava, they brought fresh laurels to the Canadians' fighting fame in France. This was the charge which, on March 30th, won back to the Allies Bois de Moreuil and Rifle Wood, two heavily-treed eminences which gave the enemy full observation of the roads which led out of Amiens.

Orders had come that the Canadian cavalry were to

cross the Roye and Avre rivers immediately and delay the enemy by every possible means. The last line that was eventually to hold Amiens had not been completed and time was everything. In high spirits the Fort Garry Horse, Strathcona's Horse, and the Royal Canadian Dragoons, together with the light field-guns of the Canadian Horse Artillery, drove through the country past Remicourt and to the north of Senecat, cleaning up small bodies of German advance guards. The river Avre was crossed after a machine-gun battle, but when the north end of Moreuil Wood was gained terrific machine-gun fire showed the enemy in force and preparing for his last smash at the outer defences of Amiens. General Seely determined to attack the wood and drive the enemy out. One squadron of the Canadian Dragoons, under Captain Victor Nordheimer, charged boldly round to the north-eastern section of the wood, riding down two outpost machine guns. Another squadron, under Captain Newcomen, fringed the south-western edge with orders to charge through the wood and join with Nordheimer. The third squadron, under Major Timmis, followed Nordheimer's tracks later. Although opposed by two lines of machine guns, the first squadron managed to gain and establish themselves in the wood, not without having a terrific fight, lasting half an hour, sabre against bayonet. The second squadron was badly mauled by machine-gun fire from the direction of Moreuil, and the third ran into the concentrated fire from several batteries dug in on the slope of the hill; but in spite of this they managed to reach Nordheimer's men in the wood. Bloody hand-to-hand fighting took place among the trees; in the end the sabres won, and practically the whole of the wood was cleared.

But the German batteries of about twenty machine guns on the slope of the hill still menaced the Canadian position and prevented other squadrons from reaching them. One section of men, numbering about

eighty, under Lieutenant Gordon M. Flowerdew, of Lord Strathcona's Horse, dashed out from the wood. The young officer had seen a glorious opportunity and charged direct at the guns. The Canadian cavalrymen literally cut the gunners to pieces as they swept by, and then, coolly re-forming on the far side, in full sight of the German infantry, they charged back again, completely obliterating the troublesome guns. With only half his force remaining, Flowerdew joined his comrades in the wood. Not a single German was left alive in what was to have been the citadel which would menace Amiens. For his conduct on this occasion Lieutenant Flowerdew was awarded the V.C., but unfortunately he died from wounds received later in the engagement.

Lieut.-Colonel Macdonald, commander of Strathcona's Horse, dismounted two of his squadrons and led them against the main German position on the hill. The casualties were heavy and the party might have been wiped out but for the continual menace of the mounted men in the wood, a menace that caused the final retirement of the enemy. In the evening along came a fresh British brigade, and all counter-attacks were beaten off. It was the closest call Amiens had.

On April 3rd General Rawlinson addressed each unit in turn and told them that the capture of the woods they had retaken would have been fatal to the defence of Amiens. "Your courage and determination have turned the fortunes of the day," he declared.

In the last great battles the Cavalry Brigade, then under the command of Lieut.-Colonel R. W. Paterson, D.S.O., with the rank of brigadier-general, again came into their own, operating with the tanks and the Independent Force which protected the Canadian right flank. They moved quickly and secretly into Amiens the night before famous August 8th, and by ten o'clock in the morning were riding over the captured German trenches and out along the Amiens-Roye road. Clat-

tering through the dusty, victorious Canadian infantry, the horsemen got an enthusiastic reception as they dashed out into the open plain in a fan-shaped formation. It was the first time they had fought with their own kith and they meant to do well. They were heavily in action by noon in front of Weincourt and Beaucourt. They circled these villages and drove down on machine-gun nests lurking for the infantry. In Beaucourt they rounded up a German brigadier and staff who were utterly oblivious to the nearness of the attack. To the south of the Roye road the Royal Canadian Dragoons made a skilful strategic detour that rounded up over a thousand prisoners, and a squadron dashed up the main road behind the tanks and with the Canadian armoured cars to Quesnel, the village on the slope where the Germans were rallying. Helter-skelter, just as if they were at manœuvres, these magnificent horsemen, with their mobile field-guns, rounded up village after village, disarming and driving back hundreds of prisoners and disorganizing any German chances of making a stand. Finally they won through to Rosières, the German railhead, and there they captured a German reinforcing train with twenty-eight officers, five hundred men, and a huge German 12-inch howitzer on a railway spur. They blew up the line beyond and prevented enemy troops from coming up. In all, during that eventful day, they covered over twenty-five miles, ranging up and down the Canadian front from where the French joined us, to the northern sector, where the Australians were fighting desperately.

On August 10th the Canadian Cavalry Brigade, which had bivouacked with the infantry, was sent out to seize the high ground west of Roye, where the French attack was being held up. They charged the Germans on the flank and, assisting in the capture of the village of Andechy, enabled the French advance to continue level with that of the British.

From this time on, through the fighting that gained us the old German front system of Monchy-Le Preux, the Fresnes-Rouvroy line, the Drocourt-Quéant line, and the Canal du Nord line, the Canadian cavalry fought with the advancing infantry and with the armoured cars and tanks. Where the crews of the German machine-gun posts would stand up against an infantry attack, they fled when the horsemen dashed among them. The cavalry likewise proved invaluable in surrounding villages before our troops entered, and were of the greatest service in protecting the advance patrols of Canadian engineers searching for mine-traps.

On October 9th the brigade went into action from Maretz across the historic fields where the old Imperial cavalry regiments fought so bravely in 1914. They were to win the high ground north of the famous town of Le Cateau, and by night they had gained a footing in Le Cateau itself and the villages of Montay and Neuvilly-Inchy. It was as if the Germans knew it was the beginning of the end and the rear-guards of the Kaiser would not stand against the rushing horsemen. Over four hundred of them were taken prisoners and hustled back to the Canadian lines.

There was a concentration of German machine guns in Cattigny Wood which was inflicting severe losses on the famous Inniskilling Fusiliers. A squadron of the Fort Garrys charged straight at the guns, killing over one hundred of the enemy and rounding up two hundred others. Nothing could stop their rushes. In another case fifteen German machine guns were attacked by the Strathcona's, and the enemy's fire was deadly to the horses. The troops dismounted and stampeded their unwounded horses to the infantry lines. Then they dashed in on foot with sabres flashing and the gunners fled. From a factory on the Bettry-Cléry road there came an enfilading fire and a party of the Canadian Dragoons attacked the place in

skirmish order, closing the circle, until with a sudden rush they gained the building, netting an officer and three sergeant-majors among their prisoners.

That evening there was a whole-hearted reception to the riders from Canada as they galloped through the streets of Le Cateau, the first British troops to enter the town since the sad farewells were made in 1914. They had fought their way eight miles across country, opened the road for the British infantry, captured four big guns and hundreds of tank rifles and scores of machine guns; but all their fatigue vanished when the several thousand inhabitants who had endured four years in bondage rushed forth to greet them. Officers and men were pulled off their horses and kissed by the women of Le Cateau. Flowers were strewn in their paths. Even while machine-gun bullets from the retiring enemy were still sweeping the town, the inhabitants continued to welcome them with coffee and bottles of wine. It was their last taste of war. Until the Armistice was signed the cavalry had little to do but bring back prisoners from the fast-breaking German armies. They had done their duty well and in their particular arm of the Service kept up—added to—the reputation of Canada.

The brigade had had eighty-two mentions in despatches and had been awarded 394 honours and decorations. Three of the decorations were Victoria Crosses.

APPENDIX IV

CANADIAN PRISONERS OF WAR IN GERMANY

1. Introductory

DURING the Great World War Germany acted on the principle laid down by Clausewitz, that "war is an act of violence which in its application knows no bounds." From the moment of the outbreak of hostilities in 1914 the civilized world was shocked by the brutality of the methods adopted by the armies of the Central Powers, methods evidently authorized by the High Command. The German General Staff in *The German War Book,* issued for the instruction of German officers, emphatically authorizes Terrorism. To destroy the enemy's forces and positions is the first object of war, and to this end, if the necessity of war demanded it, "every injury and all destruction are permissible." The civil population and open towns and villages, if obstacles to military progress, were to receive the same treatment as combatant forces and fortified places. Even the bombardment of hospitals and convalescent establishments was left to the discretion of the besiegers; and in the case of bombardment "a preliminary notification . . . is just as little to be regarded as in the case of a sudden assault." "Frightfulness" was Germany's chief weapon. "A war conducted with energy cannot be directed merely against the combatants of the enemy state and the positions they occupy; but it will and must in like manner seek to destroy the total

intellectual and material sources of the latter."[1] Officers were to have none of the milk of human kindness in their composition. "By steeping himself in military history an officer will be able to guard himself against excessive humanitarian notions; it will teach him that certain severities are indispensable to war, nay more, that the only true humanity lies in a ruthless application of them."[2]

To the German the most humane war was the one of the shortest duration, and every means, no matter how brutal, should be taken to bring a conflict to a speedy close. There are those, even among the enemies of the Germans, who defend their treatment of the civil populations of Belgium and France, the bombardment of English open towns and villages, the ruthless sinking of passenger ships and merchant vessels, the use of gas, and even the attacks on hospitals and hospital ships. In the last instance, they no doubt looked upon doctors, nurses, and orderlies as important auxiliaries to the fighting forces. Were they not patching up thousands of men who would later be thrown into the ranks against the Central Powers? One skilful physician, in the German estimation, was worth at least five hundred men to the enemy.

"The necessity of war" alone influenced the Germans, and rules of conventions, international agreements, "scraps of paper," were not taken into account after the armed forces entered the field. The German, in his methods of conducting war, could excuse himself, even if others could not. As has been said, the German has his apologists for much of his frightfulness; but in one regard he has no apologist and stands condemned for all time before the world—in the treatment of prisoners of war.

According to *The German War Book:* "The state

[1] *The German War Book:* Translated with a critical introduction by Prof. J. H. Morgan, M.A., p. 52.
[2] *Ibid.*, p. 55.

regards them [prisoners] as persons who have simply done their duty and obeyed the command of their superiors and in consequence views their captivity not as penal but as precautionary." They were out of the fight and were objects of commiseration — and this was the way they were always treated by the British. They were to be "protected against unjustifiable severities, ill-treatment, and unworthy handling; they had, indeed, lost their freedom, but not their rights; war captivity is, in other words, no longer an act of grace on the part of the victors, but a right of the defenceless." They could be set to work, but their task "should not be prejudicial to health or in any way dishonourable or such as contributed directly or indirectly to the military operations against the Fatherland of the captives." They were in every way to be treated kindly and their food was to be "sufficient and suitable to their rank," yet they would "have to be content with the customary food of the country."

In the earliest days of the war, prisoners who fell into the hands of German troops were treated brutally; and the Canadians, whom the Germans considered mercenary troops, received somewhat harsher treatment than others taken on the western front. The wounded were buffeted and kicked and in many instances bayoneted. At the Second Battle of Ypres, when large numbers fell into enemy hands, they were reviled, cursed, and roughly man-handled. On one occasion a company of marines through whom a party of Canadian prisoners had to pass deluged them with tobacco spit until the helpless victims were one mass of filth from head to foot. They were conveyed to Germany in unlighted and unventilated cars that were almost as bad as the Black Hole of Calcutta, and at stopping places were subjected to a chorus of hate and abuse from the civilian population. In 1915, when there was little scarcity of food in Germany, the pris-

oners' food was a scant allowance of heavy black bread and unpalatable thin soup. Had this been "the customary food of the country" there would have been few Germans left at the end of the war. The prisoners were only saved from actual starvation by the food parcels they received from their friends and from organized Allied charities.

Even men of the highest rank and of the most exalted positions were harshly treated. It is only necessary to instance the case of the Hon. Henri S. Beland, M.D., M.P., a former postmaster-general of Canada. M. Beland was in Belgium at the time of the outbreak of the war. He remained in the country, assisting the unfortunate and caring for the sick and wounded, giving of his medical skill to friend and foe alike. A trumped-up charge was made against him and he was arrested and carried off to Berlin, and incarcerated in the Stadtvogtei, a well-known German prison. Here he was confined in a cell "with four beds made up as bunks" and "four small wooden seats, without backs or arms."[1] The windows had heavy iron bars and massive iron doors. M. Beland's first meal, and it is typical, was "a crust of black bread and a cup of coffee without milk or sugar." His prison diet consisted solely of this black bread and soup of several varieties, all equally disgusting. For three months, until food parcels began to arrive from England, he was forced to exist on this diet; and this was in Berlin, where men of his rank in society were living in luxury and there was no real scarcity of food.

If a Canadian M.P. and former member of the Cabinet could be treated with such unnecessary harshness, it is easy to imagine what the rank and file of the prisoners endured. They were starved until they were mere skeletons, neglected when they were sick, and harshly treated by doctors, nurses, and orderlies, and

[1] Hon. Henri S. Beland, M.D., M.P.: *My Three Years in a German Prison*, p. 95.

in some cases reviled even by visiting chaplains. They were forced to work on farms, in mines, in munition factories, and even on fortifications. When they stood on their rights and refused to labour at tasks that were clearly helping their captors against their own Fatherland, they were severely punished. In one instance, and it is not exceptional, a number of Canadians, who had been led like cattle to a mine, refused to work in it. They were lined up, lectured, threatened with the bayonet; then a firing squad was called out and they were menaced with loaded rifles. But they still bravely resisted, even though they expected death. Their brutal masters then dragged them away individually and forced them to do work that contributed directly to the military operations against their Fatherland. These prisoners were treated as slaves rather than as prisoners of war. The "unspeakable Turk" was a gentleman in his treatment of captives in comparison with the Germans.

In the case of Sergeant Arthur Gibbons, to give only one example, after capture, although severely wounded with a gash in the leg and a shattered thigh bone, he was left lying helpless on the ground behind the German trenches for four days. But he was more fortunate than some of his wounded comrades, who were bayoneted. While in this condition he was subjected to kicks, blows, and curses, and the expression "Canadian swine" was constantly hurled at him. He had been a part of the hated British force. How much they were hated he saw from the use of the words *Gott strafe England;* signs bore them, women yelled them, and even children piped them as they shook their little fists at the captives. For sixteen days he endured excruciating pain before being operated on. Even while being given anæsthetics, he was subjected to curses from doctors and attendants. The operation was performed in such a way that when he was repatriated the doctors in England declared that it was clearly "a

deliberate attempt on the part of the Germans to cripple" him permanently.[1] In the hospital the women attendants cursed him as a "*schwein Engländer,*" handled him roughly, and wrenched off his bandages, laughing and jeering at his suffering. At Giessen Camp,—a camp said by Ambassador Gerard to be one of the best in the country,—where he was for the greater part of his time in Germany, the food was so bad (vile soup and black bread) that he would have starved but for the parcels sent from home, and in many cases these were broken open and parts of their contents stolen.

Whatever excuse there might be for frightfulness, even against the civilian populations of invaded countries, while the armies were in the field, there could be none in the case of prisoners of war. Only a people brutal in the extreme by nature could have treated helpless, in many cases wounded, captives in the way Sergeant Arthur Gibbons was treated; and he was no exception. Reprisals might have been practised on prisoners of war in England, but to deal harshly with helpless men was so repugnant to the British nature that it was never practised. However, German brutality had its effect in the field of war operations, and many of the Allied soldiers acted on the principle that the only good German was a dead German; and the Germans, through their cruelty to prisoners of war and the wounded, had themselves to blame for this attitude.

The following sketches give the German treatment of prisoners at its best. The first is by a Canadian infantry officer, captured in June, 1916; and the second by a Canadian officer of the Royal Air Force, captured in the autumn of 1917. They show very clearly that the directions regarding the treatment of prisoners laid down in *The German War Book* were largely ignored, even in the case of officers.

[1] Sergeant Arthur Gibbons: *A Guest of the Kaiser,* p. 131.

2. Experiences of an Infantry Officer in German Prisons and in Switzerland

Generalizations are notoriously unsafe, and those with regard to the Germans are no exception. Sweeping statements as to treatment of prisoners in Germany were invariably unsound and misleading. On the one hand it was sometimes said that the treatment was, without exception, bad, if not atrocious, in 1914 and part of 1915, but that afterwards it showed a gradual improvement. On the other hand, it was declared that treatment was always bad in Prussia and always less bad in Saxony and other non-Prussian states. None of these statements really held water. Prisoners were sometimes well treated even at the very beginning, and often ill treated even in 1917 and 1918. So, again, camps could on occasion be better in Prussia than in Saxony or Bavaria. It does not do to say that Prussians are brutes, and Saxons, relatively at least, gentlemen. The only sound generalization about the Germans is that it is unsound to generalize.

The treatment given prisoners on capture is a case in point. There are well-authenticated instances of thoroughly atrocious behaviour to men lying wounded and helpless. The writer met in Switzerland a captain of the King's Own Scottish Borderers who had perhaps as bad a time as any wounded prisoner who has survived. A German soldier, finding him on the ground with a severe shrapnel wound in the thigh, saw fit to stamp with his hob-nailed boot on the wounded place. On the other hand, the writer on the occasion of his capture (on June 2nd, 1916, at Sanctuary Wood) was quite well treated. So far from there being any brutality, there was a good deal of consideration. For instance, a German officer came out to the shell hole where four or five of us were lying at considerable risk of being killed by shell-fire from the British guns. Again, in the field hospital at Menin the treatment was

quite good. The doctors were kindly and skilful, and the attendance and food were reasonably satisfactory. The German soldiers in the hospitals were rather curious about Canadians, and the half-dozen Canadians were continually visited by Würtemberg and Bavarian privates whose attitude was not unkindly. In the course of the counter-attacks of the 11th and 12th of June several Germans came to tell us that the Canadians were killing all the German wounded. We insisted, in the best German we could muster, that it was *undenkbar* (unthinkable), though inwardly we could not help thinking that if it were true that the Canadians were taking few or no prisoners it would be nothing more than what a good many among the Germans richly deserved. The difficulty, of course, is that it involves visiting the sins of the guilty upon the innocent. The next day, however, the same Germans came back to say that we were right and that the report had been untrue. It was a certain relief.

A good many Canadians, on being captured, were cross-questioned rather roughly, not only as to matters of direct military importance (the replies, as a rule, were remarkable feats of imagination), but also as to their reasons for taking part in the war. "Why did you come to fight against Germany? What quarrel had Canada with Germany?" Any attempt, in reply, to explain that the British Empire was one and that when England was at war Canada was at war, was greeted with a brutal exclamation of disgust to the effect that Canadians were fools to allow themselves to be turned into English gun-fodder. Sometimes it was varied by the charge that we were simply base hirelings, fighting for English gold. An idea most firmly fixed in the German mind was that the only thing the English cared for was money and that the motives, whether of England or of Englishmen, were necessarily and invariably mercenary. And Canadians, in that respect, out-Englished the English. Be-

fore the war (in the summer of 1910) the writer had a conversation with a German officer returning from manœuvres. The war with England was coming soon, and the sooner the better. When asked what the British Dominions would do, he said at once: "Oh, they won't go to war. Canada, for instance, is interested only in money. It would no more think of going to war than your country. [He took the writer for an American.] Over in America they look on war as something mediæval and obsolete." Little wonder that men who had formed such views of Canada should rather resent the presence of Canadians in the British armies. Whether the disillusionment made them especially bitter against Canadians is a difficult question. In a few cases Canadians probably did get rather worse treatment than other British prisoners, but it is equally probable that in some cases Canadians were better treated than their fellows — for the typically German reason that it might have the effect of making Canada less keen on the war. This is on the same principle that the British Indians were given special (for once not in the usual German sense of "specially bad") treatment. The idea was, of course, that Indians (and, naturally, the Irish) were in the position of being oppressed and tyrannized over by the English and that all they wanted was an opportunity of turning against the tyrant. In the case of Canadians, even German stupidity did not go so far, though individual Germans lost no opportunity of impressing on Canadians how ignominious a thing it was to be hewers of wood and drawers of water for England.

At the beginning of June, 1916, the Germans were a good deal "above themselves." Constantinople was safe; Kut had fallen; and the British fleet had been badly beaten at Jutland. In fact British shipping had been pretty well swept off the seas. Russia had pulled herself together a bit, but Brussilof's losses were out of all proportion to his gains; and Roumania

was certain to come in on the winning side. What gave them almost as much pleasure as the Jutland victory was the death of Kitchener. In hospital in Hanover few of the German patients or staff failed to come into the prisoners' ward (against regulations), stand at the foot of the bed and announce with infinite satisfaction, "Kitchener *kaput*" ("Kitchener 's done for"). The German is a man of delicacy. At one German camp, at least, the flag was raised in honour of the event, the commandant explaining to the senior British officer that it was in honour of some Turkish victories.

The German optimism of the early summer of 1916 continued all through the Battle of the Somme, and, of course, rose to an even greater height when unlucky Roumania was overrun in the autumn. Prisoners could judge of the German state of mind not only from actual conversations with Germans, but also from the German papers, all of which we were allowed to get, except the Berlin *Tageblatt*. These papers, by the way, gave not only the German *communiqués*, but the Allied as well; not only gave them, but gave them verbatim. This we were able to confirm by comparing these Allied *communiqués* as given by the German papers with the same reports in English and French papers which were smuggled through from time to time. The common idea that the German Government never allowed its people to learn the truth thus needs some qualification. No attempt was made, at any rate in 1916, to prevent the people from knowing what the enemy claims were as to the military situation. Not only were enemy reports published — for the most part verbatim — in German papers, but English and French papers could be bought by German civilians in any of the larger towns. The prisoners managed now and then to get copies of the London *Times*, sometimes through an Alsatian orderly, sometimes by bribing a proper German — usually with a bit of soap. Apropos

of bribes, the common saying was that any German, by himself, could be bribed with five marks, but two together were practically incorruptible. The reason was, of course, that neither could trust the other — and this was due no doubt to the fact that there was in the German army a well-recognized system of espionage. Each spies on the other and reports him behind his back. The *leutnant* reports the *hauptmann*, and the *feldfebel* does the same for the *leutnant*, and so on *ad infinitum*.

To return to the account of what actually happened a prisoner on capture. Wounded prisoners were kept for some days, sometimes weeks, at a field hospital twelve or fifteen miles behind the front line. The journey from the field hospital into Germany was, as a rule, a trying experience, — even in 1916. What it must have been in the early days of the war, when the carriages were cattle-trucks and the German Red Cross women spat in the soup, can be better imagined than described. It must have enriched men's conception of hell. But even in 1916, when the actual train was fairly well appointed, and the food arrangements, so far as they went, worked smoothly, the two or three days spent in journeying to and fro in Belgium and finally getting to Germany were pretty actively unpleasant. In June, 1916, for instance, the journey from Menin to Hanover took fifty hours. The train dodged about in Belgium from Menin to Courtrai, Bruges, and Ghent, then to Antwerp, then back to Brussels and Namur, and finally through Liége to Germany. But whatever the fatigue and unpleasantness, and whatever the roughness of attendants, it is ridiculous to complain when one thinks of the conditions of 1914 and 1915. These were the days when, as far as anything British was concerned, the Germans "saw red" and — behaved accordingly. A severely wounded British officer who asked a German woman doctor to dress wounds which had gone unattended for

seven or eight days: "Yes, you do stink! But your wounds are not to be dressed." The same man was refused soup, which was given a brother officer who happened to be dressed in a borrowed French tunic. The latter had his plate snatched from him when it was discovered that he was not French, but British. "Red Cross!" his comment was: "yes, very red and very cross." Fresh German troops going to the front were almost invariably given the preference by these German Red Cross women, though it was wounded, whether friend or enemy, that their oath bound them to succour. However, on the German principle that reasons of state justify everything and constitute not merely the highest but the only motive, they were at least consistent.

German prison camps varied all the way from fairly good to disgracefully and inexcusably bad. In some of the big officer camps, where there were playing fields and tennis courts, the life was not unnecessarily disagreeable. The prisoners could at least keep physically fit; and no difficulty was placed in the way of their organizing concerts, dramatic performances, and lectures. In one big camp where there happened to be a number of French professional musicians, including the leader of a well-known Parisian orchestra, most excellent concerts were given; in another a rather elaborate English musical comedy was written and staged. In such places it would be absurd — given the fact of imprisonment — to talk of hardships.

The other side of the shield is better known — the story of the conditions in some of the men's camps, Wittenberg, Limburg, Hamel, and a score of others. It would be idle to go at length into details. Men were half starved. The thinnest of vegetable soup and the blackest of coarse rye bread were the staples, — and not much of them. That would have been bad enough for strong, fit men; but for men who were broken with wounds and needed building up, it was grossly and

criminally insufficient. And when epidemics came, typhus and dysentery, as they did at Wittenberg and elsewhere, the mortality was inevitably enormous. It would have been so even if the German doctors had played the game and stayed to fight the disease. But they did n't. They simply left. In the case of Wittenberg, as is well known, their place was taken by three English doctors who volunteered. But the story of that splendid episode is best read in the quiet and detached but very terrible English white paper. One further word may not be out of place. What, it may be asked, was the attitude of the higher German authorities? The answer is a brief one. The only German doctor who entered the typhus-stricken camp (in a germ-proof suit of rubber) was given an Iron Cross.

Nor was the starvation diet the only hardship. Another of the worst features of prison life, for prisoners of non-commissioned ranks, was the forced labour in salt mines, in munition works, and in the fighting zones. The two latter kinds of work were, of course, entirely in contravention of the German Convention. The cases are innumerable of men scarcely able to walk being driven with kicks and blows to work twelve and fourteen hours a day on food that would not have kept in health a strong man who had no heavy manual work to do.

The actual number of deaths among prisoners in Germany due entirely to inhuman treatment, whether active brutality or simple indifference, cannot yet be accurately known, but it is safe to say that it will be appalling — particularly among the Russians. In one district near Berlin the number of deaths among the Russian prisoners in one winter was ten thousand. The Serbians and Rumanians fared worse than the Russians. With regard to the Russians, it is worthy of note that of all the prisoners, — leaving out the Serbs and Rumanians, who were few in Germany, — the "poor old Russkies" (that was the name they went

by) were the most to be pitied. It was not simply that they were more like children than the French and British, and seemed, many of them, to lack the intellectual and moral resources to draw on to keep them from brooding. There was also the fact that their parcels from home, even before the collapse of the Czarist Government, were exceedingly infrequent and uncertain — and, perhaps worst of all, the feeling that their Government cared not a whit what became of them. The story used to be that when the German Government threatened the Russian Government that unless it made changes in its treatment of German prisoners, certain Russian prisoners would be shot, the Russian reply was: "Oh, very well, shoot as many as you like; only don't shoot so and so; we want to shoot them ourselves." Several Russians remarked to the writer that it was one thing to be a prisoner with a government like the British Government behind you; it was quite another thing to be dependent on the tender mercies of a Russian Government. That was the Czarist Government. But the Government of the Revolution was hardly an improvement. The story went that when the revolution came, in March, 1917, the Russian private soldier prisoners were delighted. "France is a republic and the French get their parcels regularly. Now that Russia is a republic, we will get our parcels regularly." Their mistake they discovered all too soon. The supply of parcels, instead of increasing and becoming more regular, stopped altogether. In spite of everything, however, the Russians on the whole have as fine a record for high spirit and staunchness as any body of prisoners. To begin with, an extraordinarily large number escaped; they used to dribble into Switzerland at the rate of at least several score a month. Then, again, they were among the most stout-hearted in refusing to do any work of military importance, though the penalty was the severest kind of suffering, if not death.

One not unexpected characteristic of most German prison camps was the prevalence of espionage. In one camp it would be one of the orderlies, — officer camps had a certain number of English, French, or Russian soldier prisoners as orderlies; in another it would be an alleged Russian officer whose German accent was due to his coming from the Baltic provinces. In the writer's own camp, Wahmbeck, when one of these gentlemen turned up on one occasion, it took perhaps two hours for the other Russians to make up their minds that he was a spy and warn all their fellow prisoners to give him a wide berth. So much for German cleverness. Another little practice that seemed to be particularly dear to the German mind was that of announcing that within, say, an hour, such and such men were to be moved to another camp. Before leaving the camp their baggage would be carefully searched in the hope of finding maps, compasses, and other paraphernalia. The idea, of course, was surprise effect. The only surprise, as a rule, was that of the German at his utter inability to find incriminating articles which he was sure must be somewhere not far away.

The best way of getting out of Germany, obviously, was to escape. That was the sporting thing to do. Failing that, the next best was to get out via internment in Switzerland. But it was a very poor second; it was so much like being kicked out by the back door. Escaping was a thing of nerve and adventure; passing for repatriation was a squalid business of medical boards and, at times, crying "pain, pain, when there was no pain." The procedure was, first, examination by a travelling medical board of one German and two Swiss doctors who decided which were the likely cases. Men accepted by this first board were then sent to Constance, on the Swiss frontier, to be examined by a board of two Swiss and three German doctors. Only

about fifty per cent. of those sent to Constance, as a rule, were passed for Switzerland, the other fifty per cent. being ordered back to Germany. The Constance business was usually long drawn out and most uncertain. The writer's own experience, for instance, was a wait of three weeks at Constance before any board sat; then, after examination, a week of rather unpleasant uncertainty whether it was to be Germany or Switzerland. The monotony was relieved, apart from two-hour walks in the square, mainly by discussion of the chances of various "candidates," of the policy or want of policy of the examining board, of what had happened last time, of innumerable schemes for outwitting the wily Hun and making a better appear a worse case. The general feeling was that it was a case of "every man for himself and God for us all, as the elephant said when he danced among the chickens." It was not a case of only so many being able to go and one man standing in another's way. It was a game, and no one had any scruples about making himself out much more unfit than he really was. The most ingenious people at simulating dreadful diseases they hadn't got were the Tommies. They made their spleens swell up by sleeping in a tightly drawn belt, contracted asthmatic throats by drinking much beer filled with granulated sugar, and posed as consumptives on the strength of specimens of sputum secured from Russians who were all too truly tubercular. The only difficulty about the enlarged spleen and the asthmatic throat complaints was that they were sometimes arranged for the wrong day, as the Germans gave no sort of notice when the board would actually sit. Risks had to be taken; but the game was worth the candle. The medical boards had the reputation of being so capricious that the most unlikely person thought he had a sporting chance and the "dead-sure case" felt anything but certain. Horse-races and elections were as nothing in comparison. To make the uncertainty

the more interesting, every two or three days after the examination small parties of us were sent off: one to Heidelberg, for further observation; another party straight back to Crefeldt; a third to a camp not far from Constance — to wait, as it proved (nothing was explained at the time), for a week and then to go to Switzerland. There were thirty-one survivors (out of one hundred odd) after these three parties left. Even then we could not be sure we were for Switzerland. So it proved, however; and on a few hours' notice we packed, were inspected, and crossed the frontier.

The delight at finally shaking the dust of Deutschland off one's feet can be better imagined than described. One instance of the extraordinary effect it had on men's spirits (and even perhaps on their bodies) may serve as an illustration. A British soldier who for months had been unable to rise from his bed, owing to severe paralysis, a few minutes after getting into Switzerland sprang from his bed and walked about perfectly fit and strong. The moment he heard that the frontier had been crossed he asked: "Are you sure there is no chance of our going back to Germany?" When he was satisfied that he had shaken the dust of Germany off his shoes for good he remarked: "Well, I think I'll get up!"

Nor was this the only miracle!

It is probably pardonable if for the first few hours of liberty people behaved as though the war was over and they had n't a care in the world. Any other mood would have been rather difficult in the face of the extraordinarily generous and whole-hearted way we were welcomed by the Swiss. It began the moment we crossed the frontier and continued all night. At every station our train was met by crowds of men, women, and children cheering, waving flags, and offering us fruit and chocolate and biscuits. There was nothing very neutral about the Swiss, even the German Swiss, on that occasion. And so far from growing fainter,

the welcome increased, if anything, in volume and heartiness as we went on into French Switzerland. Lausanne, Vevey, Montreux — everywhere it was the same. By the time we reached our destination, Château d'Oex, twenty miles from the east end of Lake Geneva, we had eaten seven breakfasts and listened to eleven speeches of welcome, each less neutral than the last. We might have been in Canada.

Life as an interned prisoner of war in Switzerland was as pleasant as anything short of absolute freedom could well be. The exact status of the interned was, prisoners of war held by the Swiss for the Germans. There was no individual parole not to escape, but the British and French Governments gave a general parole for all the interned that if any of them escaped they would be sent back. One curious result in that connection was that an escaped *interné* sent back by his own government became the prisoner of the Swiss, no longer a German prisoner of war held by the Swiss for the Germans. If he escaped a second time the government parole given to the Germans did not apply. So, at least, it is said to have been decided in the case of an enterprising French officer who provided a test case. Some sort of parole was necessary, as it was quite easy to escape. The interned officers and men alike were given a very large measure of liberty. Within their particular district (usually a radius of from twelve to fifteen miles) the interned had complete freedom; to go beyond it one had to get leave from the local Swiss military authority — not a difficult thing.

When the first interned went to Switzerland in the summer of 1916, the officers had nothing to do with the management and discipline of their men. Complete control was exercised by the Swiss military authorities with the assistance of the non-commissioned officers. Before long, however, it was found that without the officers to support them, the

non-commissioned officers could not "carry on." The result was that the interned officers were brought in to assist, under the direction of the Swiss officers, in maintaining discipline,—an arrangement which proved fairly workable. The quarters of the men were châlets and hotels turned into temporary barracks; the officers lived in ordinary civilian hotels.

As was to be expected, it was not long before it became evident that means must be provided for keeping the men occupied. Tommy Atkins at work is of the salt of the earth; idle, he is like any one else, very prone to inordinate grumbling and inordinate mischief. Most of the men appreciated Switzerland and Swiss hospitality,—and well they might,—but here and there, after two or three months out of Germany, one heard remarks to the effect: "Oh, yes, Switzerland 's all right, but we do miss our parcels." Actually regretting having left Germany! Incredible, but such is a certain kind of human nature.

To provide occupation for the men, a regular army school was established, with masters from England and odd officers lending a hand. The idea was to prepare men for the regular non-commissioned officer certificate examinations, and the results were fairly satisfactory. There were also any number of facilities for winter sport, such as skiing, skating, and hockey. Then there were lectures, concerts, theatricals, and boxing. A certain number of men were employed in various ways by Swiss civilians—every sort of job, from lumberman to professional football player. Not that all the interned were fit enough to undertake work of so strenuous a kind, or indeed of any kind. A large number, unhappily, were hospital cases, obliged to spend most of their stay in Switzerland on their backs or hobbling about the hospital grounds. Fortunately they had the benefit of the best air and sun in the world and of the exceptionally good Swiss doctors and medical science. A sleigh-drive fund was raised by

an English lady who happened to be living there, and much was done to relieve the monotony.

Another much appreciated variation of the monotony was provided by the periodical visits of parties of wives and mothers. Officers could get their wives and families out to stay indefinitely — and it was felt that something should be done to enable the men to see their families. The matter was taken up by people in London; and sufficient money was quickly provided to send out parties of twenty or thirty wives once or twice a month, for a visit of two or three weeks. This became a most popular institution, and the arrival of a party of wives was one of "the events." And wives were not all. Fiancées came as well, and marriages were quite the order of the day. With so many wives and families coming out, it was not long before the colony became quite like a bit of England. Englishmen always, of course, "take their England with them." To begin with, there were the three churches: Church of England, Roman Catholic, and Nonconformist,— all three with padres sent out from England; then the Army School; and finally the Red Cross Hut, which was really the centre of the life of the whole camp, staffed by V.A.D.'s from England. There the men got books, music, games, and last, but not least, food — and at the minimum of cost. When the strict rationing began in the autumn of 1917, the interned soldiers were in the happy position of getting in fairly generous quantities things like butter and sugar, which the Swiss civil population practically went without. So that the Château d'Oex Red Cross Hut is not likely to be forgotten.

But in spite of all the distractions, the time was long, and many of the men had more leisure than they could be expected to employ profitably — and the wonder was that breaches of discipline were so few and far between. The chief trouble, as a matter of fact, was due to an unwise arrangement whereby severely

wounded German and Allied soldiers were sent, at first, to the same hospitals in Lucerne and Zurich for special treatment. To do that was, naturally, to ask for trouble — and it came, in the shape, on one occasion, of a volley of plates, knives, spoons, and other hospital utensils directed by the British and French patients at their German fellow-wounded. An unhappy business, certainly! But on the whole the discipline was excellent. In the same connection the Swiss verdict on their various "guests" may be interesting. The British were not, I 'm afraid, given the highest place; that went to the French, who, it seems, proved the least *difficiles*. Next to the French came the Belgians; then the British; while the reputation of least attractive and most troublesome guests was easily carried off, it appears, by the Germans. Perhaps one may console oneself for falling below the French and Belgians by the reflection that they spoke the same language as their hosts. Host and guest are much less likely to get on one another's nerves if they understand each other.

Having got to Switzerland the next thing was to get out. The repatriation scheme was in the air for months before it finally took shape in the summer of 1917, and men were sent home on condition that they had lost fifty per cent. of their fighting capacity, or if, in the case of tuberculosis, they were either cured or incurable. These conditions obviously opened a wide field for ingenuity, and effected a complete change in the habits of the much-enduring *internés*. Men who had regained, or even exceeded, their pre-war weight and had done winter sports and mountain climbing in the most strenuous fashion suddenly discovered unsuspected weakness of heart or nerves and went in for the life of invalids. People who had made light of their wounds and liked to show how active they could be suddenly realized that, after all, their wounds were pretty serious and they must accept themselves as

cripples and old men. But the ways of medical boards are inscrutable, past finding out, even for the most ingenious of *internés*, and many were the disappointed hopes and the rejected symptoms. The "court of first instance" was followed by appeals and "special cases," now of obscure West African fevers, now of incipient madness. If people had few scruples about how they passed for internment in Switzerland, they had even fewer in the matter of repatriation to England. By going home they were leaving room for more prisoners to come from Germany and putting themselves in a position to do "some job of work" at home. For though fighting fronts and lines of communication were forbidden, repatriated men could be employed in training and administrative work. They were doing no good to themselves or any one else by staying on in Switzerland. The result was that the long-suffering Swiss, having been kind enough to take us in as guests, were given no peace till they let us go. Not that they wanted to keep us. Not they! They had seen enough of us many months before. But they were in the position of being obliged to adhere to the conditions laid down by agreement between Great Britain and Germany. The Swiss must have thought us curious and rather ungrateful guests. Hardly had we finished thanking them for receiving us when we began pestering them to let us go. But if in their keenness to get home the *internés* forgot, for the moment, to be duly grateful to the Swiss, few of them are likely to forget the part Switzerland played in the Great War as an asylum and a City of Refuge.

3. Prison Experiences of a Royal Air Force Officer

November 20th, 1917, broke with heavy clouds hanging low over the ground and a fine, misty rain falling. As I hurriedly put on my fleece-lined flying clothes,

about 5.30 a.m., I heard the guns up the line giving tongue in steady rolls; the big push on Cambrai had started, and the boys in the trenches had gone "over the bags." The two-seater fighting-machine which my pilot and I were flying was to co-operate with the infantry by keeping in touch with their advance; and to go far behind the German lines to report enemy troop movements, to forestall counter-attacks, and collect all information of value. The rain was so heavy that in order to see the ground and to keep our direction we were forced to fly just above the tree tops, dodging around church spires, and climbing over hills which seemed to jump up before us out of the mist. Later on the clouds lifted a bit, and we were able to watch the movements of the British tanks as they crossed the Hindenburg line of trenches and rolled on towards Cambrai. Occasionally we spotted parties of the enemy collecting at cross-roads and in village streets, and dived on them, scattering them with our machine-gun fire. Machine guns and rifles were being fired at us continuously, and I could see many holes appearing in the fabric on our wings, but for two hours nothing touched a vital part of the machine.

Suddenly, while at a height of about fifteen hundred feet, my pilot, who was sitting directly in front of me and only a few inches away, lurched forward in his seat and fell on the controls, shot through the head. At the same moment I was hit through the cheek, and the machine dived for the ground, spinning, and absolutely out of control. I reached for the control stick, and when only a few feet from the ground obtained enough control of the machine to crash lightly and save my life. The shock injured my spine, and I was picked up from the wreckage unconscious by German Red Cross men, and taken by ambulance to a dressing station in an old French school, some twenty miles behind the German trenches. When I became conscious two days later, I found myself in bed in a room

full of wounded Germans and a few wounded British Tommies. There was a German nurse in the room who talked English, having been trained in England before the war. She was quite kind to me. My left side and both legs were paralyzed; my arms were practically useless; my back was intensely painful; and I could not make the slightest movement without help. After two days I was carried to an outside building and locked in a room alone, a German orderly bringing in my food and feeding me several times a day. The food consisted of black bread and broth soup, made from potatoes or other vegetables.

For eight days I lay here alone, listening all night long to the steady march of German infantry and artillery advancing to the front for the big counter-attack of the 30th. Sympathetic French women and children tried to evade the guard at my windows to give me fruit, chocolate, and other food, but were always driven away with curses. A German flying officer came to me one day, evidently to secure information about our types of machines, etc., but of course I could only tell him my name and unit. He promised to drop a note with my name and the particulars of my capture over our lines in the course of a few days, —and this he evidently did, for it was in this way that word of my captivity was received by the British.

I was next taken in a very badly fitted hospital train to Le Cateau, and put in a large room in a converted factory building, which was being used as a clearing hospital. Here I remained a week, during which time a great rush of wounded British came through, taken in the counter-attack launched by the Germans on the 30th.

The room I was in became filled to overflowing with over five hundred men, many suffering from ghastly wounds. Most of the wounded had been lying in barns near the trenches for five days, and had only the first field-dressing put on by themselves, or a pal, and had

received no medical attention. A German doctor and a nun came in for a short time each morning, but they could attend to only a few of the very bad cases. We were without attendants save for two or three filthy Belgian civilians, who busied themselves mainly in stealing the food given to us. At night we were absolutely without attendance. The German medical service, so highly efficient on paper, had completely broken down under the heavy call now made upon its services. There was at this time such a scarcity of medical men and nurses that even the German wounded could receive scant consideration. The death-rate was appalling, and each morning orderlies came in to carry out a number of still forms, men who had died during the night. The food given us was, morning and afternoon, a cup of substitute coffee — made from baked barley or acorns — with two thin slices of very black bread; at noon each day a bowl of very watery soup; and at night a small piece of raw sausage. My stomach would take nothing but the soup, so I had to get along on that.

At last we were loaded on a hospital train, ten officers and three hundred men, and started for Germany. The trip was quite comfortable, the food better, and there was an orderly for each coach. At twelve o'clock on the third night of our journey we arrived at Münster Lager in Westphalia, in the north of Germany, near the Dutch border, and were loaded on big springless wagons, the stretchers being laid four across the top of each one. The roads were frozen hard, and the jolting of the wagons reopened many wounds; but after half an hour we arrived at a group of huts, chilled to the bone. We were then taken from the stretchers and laid on the bare floor in rows, pushed up close together until all of us were packed in. The place was bitterly cold, and the only protection each man had from the severe weather was a single blanket shared with a fellow patient. We stayed here until the fol-

lowing noon, when the cases were taken one by one, wounds dressed by German doctors aided by Russians, and the patients put into beds in other huts.

Many of the wounded had received no treatment for over a week and were in such a hopeless condition that for days there was a steady stream of cases to the operating theatre for amputations. The officers were assigned a separate hut and they were given two slightly wounded English orderlies to look after them. The food was practically the same as at the last place, and we received only two meals a day. We were now allowed to write a postcard to England and give our address to have food parcels sent on to us, without which it would be impossible for us to keep up our strength. In the N.C.O.'s and men's huts the food condition was even worse, more water being added to their soup than to ours. Many of the prisoners in this camp had been taken early in the war, and were kept here to perform menial work. The great majority of them were very thin and sickly looking; and their condition would have been far worse but for the food sent from England through the Red Cross. They told harrowing tales of their lot in the salt mines, where many of their pals had died from exhaustion and starvation; and of being forced to work in munitions works, and under our own shell-fire behind the lines. A corporal who was captured at Mons in 1914 was locked in a cattle-truck full of wounded men for three days without food or drink. At one station German Red Cross nurses brought a pail of water, showed it to them, and then threw it on the ground before their eyes. The British were the most hated of all the prisoners, and were insulted and treated worse than any others, especially in those early days.

I was kept but two weeks at this camp, where I am convinced the Germans gave us all the medical attention in their power. They lacked an adequate trained staff for the large number of cases, but were helped

a great deal by several experienced Russian dressers, who did excellent work caring for us.

On December 21st the officers were once more placed on farm wagons, taken to the station, and put in an ordinary coach, being laid on the seats. We arrived at Hanover twelve hours later, chilled through, as the coach was not heated and we had no blankets. We were now taken to a large hospital, received by German nurses, and — for the first time since our capture — placed in warm beds. My clothes had not been taken off for over a month, nor had I been bathed; so it can be imagined how good the change felt. My legs were still useless; but by this time my back was less painful, and I could use my arms a little. Besides the British officers in our part of the hospital, the only other prisoners were about a dozen Russian private soldiers — a filthy lot.

On Christmas Eve a small Christmas tree decorated with tinsel and coloured candles was placed in each room; and after the lights were turned out, the candles were lighted. Then along the halls a group of German schoolchildren slowly marched, singing carols very sweetly. I recognized several well-known airs; they were beautifully sung, and carried our thoughts far, far away to the Christmas festivities in our own homes. On Christmas Day we were given a "Sunday dinner," consisting of mashed potatoes and a small piece of horseflesh, instead of the usual watery soup given the other six days of the week. Each of us received a present of four gingerbread biscuits, the same as given to their own soldiers, and that completed the Christmas efforts on our behalf. The country was indeed very closely rationed, and any luxuries were very expensive. Our German orderly paid eighty marks (fifteen dollars) for a small goose for his Christmas dinner.

After the New Year we were given practically the same medical treatment as the German patients in the

hospital. The ward doctor came every morning to see each of us, and then the cases ordered to be dressed were taken to the dressing-room, which should have been the cleanest room in the hospital, but was often the dirtiest. It was very poorly organized and staffed, and the patients had often to wait for several hours, with bad cases being attended to just a few feet from them. All bandages were made of thin paper, no cloth being available in the country, and most of the nurses and orderlies were very rough and knew little about their work. Instruments were very dirty and used on patient after patient without being cleaned. This applies to the German sufferers as well as to the prisoners. I was given electricity and massage every day, and soon began to get into better shape. The greatest hardship at this time was lack of sufficient food. There was the daily bread ration in the morning, with a cup of substitute coffee; and every noon, except on Sunday, a bowl of watery vegetable soup, of which the main ingredients were carrots, mangolds, sauerkraut, or turnips. The only meat we could find in the soup was sometimes a bit of gristle. On Sunday at noon we received boiled potatoes with a piece of roast horseflesh, instead of the soup. At night, three days a week, we were given a thin porridge, and the other four days a piece of very raw sausage, usually blood sausage. My system would not take much of this food, so I lost more weight than the others; but we were all hungry all of the time. The German patients were given this same ration, but many received parcels of food from their homes.

The building was very unsanitary, and swarmed with black beetles, cockroaches, rats and mice, the latter keeping high carnival at night on the floors and even the beds. The Germans did not seem to mind them, and rather enjoyed hearing them crunch when stepped on.

Each month we were allowed to write two letters

and four postcards to send to our homes; but the information we could give was very limited. The officers could have cheques cashed through Holland; and as we were charged for many things, money was most necessary. An orderly secured us in the city hairbrushes, toilet articles, shaving outfits, etc., and for these charged us exorbitant prices, but we were glad to get them. Our uniforms had been taken from us, and we wore a hospital costume of striped cotton. We were allowed to walk, or be wheeled in a chair, into the corridors amongst the German patients.

At the end of two more months I was able to sit up in a chair and be wheeled to a window in the corridor, where I could watch the thousands of people passing by on the busy street outside. They were mostly women, clothed in black, many of them carrying huge baskets on their backs, or pulling small four-wheeled wagons piled high with farm produce, fuel, or furniture. Most of these working people seemed drawn and pinched and tired out. The heavy work and the small rations were evidently telling on them. The only horses or motors seen were driven by handsomely dressed, sleek German officers, who bore themselves most arrogantly towards the general public.

The *moral* of the people was very high during the winter months because of the peace with Russia and Rumania and the much talked-of offensive on the western front that was to bring the British and French to their knees. We were questioned continually about the food conditions in England, the questioners being eager to get corroboration of the claims made in the German papers that most of the Allied ships had been torpedoed and that England was starving. America's gigantic preparations were laughed at; they did not believe that America intended sending more than a handful of troops to the front, and they were convinced that all American transports would be torpedoed and sunk on the way across. "They are only

preparing to fight Japan," a German officer said to me: and with that belief the people solaced themselves. When General Foch was appointed commander-in-chief of the Allied forces, a famous military critic pointed out that it was the greatest move the Allies had made during the war, as he was the only Allied soldier whom Germany need fear.

About the middle of March we began to receive Red Cross food parcels from England, with a resultant marked improvement in our health. The parcels, which usually came in good condition, contained such food as oatmeal, rice, milk, meats, jam, sugar, and tea. They were opened by the Germans before being given to us; but only an occasional article was stolen. Once each day the nurses took the food to the kitchens to be cooked.

When several of the officers had recovered sufficiently to walk they were sent under guard to a prison camp at Karlsruhe. Most of their clothes had been destroyed or stolen, so they were forced to take the journey wearing whatever apparel they could find,—big wooden clogs for shoes, white cotton pants, steel trench helmets, socks as collars, etc. They were marched down the main streets of the city to the station, presumably to provide amusement for the public.

For a time I could move about only with the aid of crutches. Almost as soon as I was able to walk with the help of sticks I received orders to get ready to go to Karlsruhe Camp. I was still very weak and far from fit for the journey; but the big German drive of March 21st, 1918, was now under way, and the German casualties were so heavy that all the hospitals had to be cleared to receive the wounded. On April 12th I left under guard for the camp. I was first put into a fourth-class carriage with hard board seats, and then, after I had objected strenuously, I was given a third-class compartment for most of the trip, which took twenty-four hours.

The camp at Karlsruhe consisted of a group of wooden huts built in a public square in the centre of the city and fenced in by two rows of barbed wire. Armed sentries patrolled both inside and outside, night and day, with orders to shoot any one who stepped inside the "neutral zone" between the two rows of wire. At the time of my arrival the camp was full of French and British officers captured in the recent big offensive. There were brigadier-generals, colonels, many staff majors, and captains amongst them. All were given the same treatment irrespective of rank, and were forced to salute all German officers. The prisoners received two meals a day, consisting of vegetables and black bread; twice a week a small meat ration was added. There was a canteen at which articles such as dishes, brushes, and tooth paste could be bought; but the only food sold was radishes. The British Red Cross had a relief depot at the camp, and twice a week gave us an issue of bully beef, biscuits, tea, and dripping. This food was all sent from England, and proved of great value. I met several old pals here, amongst them two officers of my old squadron who had been in the dungeons at Le Cateau all the winter, sentenced to death for dropping propaganda literature over the German lines. They had been kept locked up and fed on practically a bread and water diet, and not allowed soap or toilet articles. They would probably have starved to death but for the help of brave French girls, who smuggled food and comforts in to them. The death sentence was about to be carried out; but the British Government heard of it in time, and saved them from death, though not from captivity, by threatening to shoot submarine commanders in English prisons in retaliation.

While at this camp, British, French, and Italian officers put on a fine concert for us, each number being rendered in three languages.

A week after I arrived at Karlsruhe the flying offi-

cers in the camp, twelve in all, were taken by train to a camp at Landshut in Bavaria, near the Swiss border. For two days and a night we were locked in a carriage without being given any food or drink, and too crowded to get any sleep. Landshut Camp was a group of board huts, a mile from the town, with a swift-flowing river around three sides of it. The huts were also surrounded by two lines of barbed wire and patrolled by sentries. We were stripped of all our clothes, and given a prison suit of black cloth with broad yellow stripes sewn into it. After being questioned very closely by German officers, we were locked in a large hut. Here we remained for three days, when we were again cross-examined by a German, named Pastor, who had been in America for some years and spoke with an affected American accent. After this we were allowed to mix with the other officers in the camp and exercise in a small barbed-wire enclosure about seventy-five feet square. All the officers here were from the Royal Air Force and had been shot down behind the German lines, either while operating fighting machines along the battle front or while on long-distance bombing raids over cities along the Rhine. After a time our clothes were returned to us very much ripped and with the badges gone. They had been closely examined for maps or compasses, which many of us carried concealed under rank badges or sewn in our clothes, with a view to escaping if taken prisoner.

Life went on quite smoothly and monotonously after this, and we were not subjected to excessive hardships. As usual the food was the biggest worry, as we received just the usual two small meals a day with a ration of black bread. But the meals were a little better at Landshut Camp than in our previous prisons, and the Bavarians took more pains to please us. Occasionally we were allowed to buy sardines, a small amount of chemically-prepared jam, and bottled beer,

which helped out our rations. During the first three weeks we were inoculated in the chest five times, about four days between each inoculation, and some of the boys were quite ill for a time. After this we were vaccinated on the arm.

The German-American civilian, Pastor, visited the camp frequently. He had been a wide traveller in America and knew most United States and Canadian cities quite well, even the names of the streets. He endeavoured to ingratiate himself with the officers in the hope of getting them to talk about the various types of machines the Allies were flying, and of conditions in England; but he received only evasive answers to his inquiries. As he often brought to the camp a copy of the London *Times* only a few days old, we were glad of his visits. We were allowed to buy a daily paper, the *Continental Times,* printed in Berlin in English. Its whole tone was one of hate towards the Allies, particularly the English. Nothing too bad could be said about England or anything English. But the Bavarian soldiers in charge of the camp acted towards the prisoners in no unfriendly spirit, a marked feature of their conversations being a bitterness against the Prussians.

After six weeks of close confinement at Landshut Camp, a party of twenty of us were marched to the station, *en route* for another prison camp at Holzminden in Prussia, near Hanover. During a most tiresome three-days' journey we were kept closely guarded in an old fourth-class coach with board seats, meals being given us at stations along the way. On arriving at Holzminden we were marched to the camp about half a mile from the town, and after being thoroughly searched by German soldiers were allotted to rooms in the camp buildings.

The camp was made up of two large modern four-storey buildings, which had previously been used as a barrack for German soldiers. The buildings were

surrounded by a stone wall surmounted with rows of barbed wire and many electric lights. About five yards inside this wall was a single wire fence, and the intervening strip of ground was a "neutral zone." The sentries had orders that any prisoner who stepped inside this zone was to be shot without challenge. The whole enclosure was about 120 by 100 yards and was used as a recreation ground. There were about four hundred and fifty British officers and fifty men in the camp, the men acting as orderlies, doing the sweeping and dish-washing mainly. I was put into a room about fifteen feet wide and thirty long with eleven other officers, and luckily found myself with several Canadian pals.

The rooms were furnished only with an iron-frame bed with a paper mattress and two thin blankets for each prisoner. Most of the officers in the camp were flying men who had been prisoners for two years or more, and nearly a hundred were Canadian boys. I soon learned that the flying men were collected here because they were the ones who gave most trouble trying to escape; and this was considered the most difficult camp to escape from in Germany. We all had to attend three roll-calls a day, — morning, afternoon, and evening, — forming up in two lines in the wire enclosure, while a German officer called out our names. Many of the prisoners were receiving food parcels from England; on these they managed to live very well. It was absolutely necessary to have this food from England, as that supplied here by the Germans was hardly enough to keep a man alive, and not fit to be eaten continually. There was the usual ration of black bread, made mostly from sawdust and potatoes, and a very watery vegetable soup at noon and night. Newly arrived prisoners had the hardest lot as regards food; but to ameliorate their condition officers receiving parcels contributed a proportion to a common supply box. Parcels were also sent from Eng-

land to this common supply box, and sold to those in greatest need. All prisoners' parcels were carefully examined by the Germans in the presence of the recipients; and tinned food was retained until required, when the tins were opened by prison officials. This was done because contraband articles, such as compasses, maps, and wire-cutters, were often sent to prisoners by friends in England. In spite of the care taken by the Germans to detect such articles, many were successfully smuggled into the camp concealed in food and clothing. Of all the food parcels sent the prisoners in Landshut Camp, about seven out of ten reached them safely, the other three being broken open or stolen.

The prisoners did their own cooking, and usually from two to five officers combined supplies and cooked and messed together, the officers taking turns in acting as cook. But the preparation of meals was far from an easy matter. There were only two stoves suitable for cooking in the whole camp, and the scramble for a place at these stoves at meal times can be more easily imagined than described.

The camp was not without its enjoyments. In the enclosure the boys laid out a small football field and organized several teams; and matches were played daily. Football and baseball supplies were sent from England through the Red Cross. As the field was too small for outdoor baseball, indoor rules were adopted and an indoor ball used. Three leagues were organized,—major, intermediate, and minor,—and some fine games resulted, the Canadians always taking the lead. One group of officers, after many weeks' work, made two tennis courts, and with supplies obtained from England were able to enjoy this invigorating sport.

The camp library was an excellent one of some five thousand volumes. The books it contained had been sent out to various officers through the Prisoners'

Book Club. These were collected together and a lending library organized which covered every field of study and helped the prisoners to pass their time quite profitably. Classes were established to teach French, German, Italian, Russian, agriculture, engineering, bookkeeping, etc. A debating society was formed and weekly meetings held, at which interesting subjects were discussed by officers from every quarter of the world. There was also a dramatic society which staged amusing plays, written in the camp.

I had not been long at this camp before I began to understand why it was considered the worst officers' camp in Germany. The camp itself was not intolerable; the trouble lay with the commandant, a typically brutal Prussian bully named Neymeyer. Before the war Neymeyer had lived in the United States, in Milwaukee, and he spoke with a pronounced American accent; from this we nicknamed him "Milwaukee Bill." He was a stout, straight-backed man of over sixty, with a most arrogant and insolent bearing. His greatest delight was to strut about the camp, military cape swinging, spurs jingling, making the British officers salute him at every step, and causing trouble at every turn. Prisoners were deprived of their least comforts; grossly insulting language was used towards them; and they were put in the cells on the slightest pretext. Neymeyer's American slang and pronunciation were most amusing; but if one smiled it meant a term in the cells. Although the British Government paid the Germans for our support, Neymeyer taxed us for our food again, and in addition charged ten marks a month for fuel and five for water to drink. Money was a necessity, and we were able to cash cheques through Holland, camp money being given to us in exchange. This money could only be used in the camp canteen, where many articles, but no food or clothing, could be bought.

In June we were notified that reprisals were to be

taken on the British prisoners in retaliation for alleged ill-treatment of German prisoners in British camps. Sports, such as baseball, tennis, and football, were prohibited: no walking was allowed except inside the wire enclosure; no music—even the gramophones were taken from us; no newspapers, theatricals, or meetings of any kind. This went on for over three weeks, when the restrictions were suddenly removed.

On the night of July 28th twenty-nine officers escaped from the camp by means of a tunnel over eighty yards long, which had been secretly worked on for eight months. It led out under the barbed wire from beneath a stairway which the Germans had boarded up. The boys had to cut through three walls to get to the tunnel entrance; but so carefully was the work done that the operators were not discovered at their task. The tools were obtained from bribed German sentries or improvised in the camp. For the ventilation of the tunnel while work was in progress an engineer officer cleverly improvised, from bits of cans and iron taken from beds, an air-pump, which was operated by a windlass. Sand-bags were made out of blankets or old clothes, and when filled were piled under the stairway. Reliefs worked night and day between the roll-calls, all being directed by an escape committee. A series of photo negatives, each the size of a postcard, of a road map came from England concealed in a parcel. These showed every road to the Dutch border, indicating the route to take and the places to avoid. Printing paper brought in by a bribed sentry was used to make a copy for each man who should attempt to escape. German money was obtained in the same way; and passports were neatly forged. Compasses came in the soles of boots which had been hollowed out, or concealed in cakes, soap, cheese, or pickles. The prison officials had carefully examined these things, cutting up many of them, when

the parcels were first opened, but only found a small percentage of the hidden articles.

When it was discovered at the next roll-call that twenty-nine officers were missing, the commandant was furious and at once began to make it hot for his prisoners. He locked us in our rooms; kept our food from us; made us stand on roll-calls five times a day, with sentries in a line a few feet in front of us with orders to shoot us down at the least provocation. He insulted many of the prisoners and put them in the cells for no apparent reason. He remarked at roll-call one day: "Gentlemen, some cells are empty: I must have them filled;" and then picked out several victims, sending them at once to the cells. These cells were about six feet wide and twelve long, located in the basement, the one small window being boarded up to shut out any light.

In the course of three weeks nineteen of those who had escaped were caught and brought back to camp and put in the cells. The other ten, by walking during the night and sleeping by day in woods, reached the Dutch border, taking between fourteen and twenty nights to cover the one hundred and twenty-five miles. Their food, during this time, consisted mainly of chocolate, biscuits, and cheese sent from England, and was carried in their haversacks. The nineteen who were brought back, after serving the three weeks' term laid down by international agreement as the penalty for attempting to escape, were court-martialed on a charge of conspiracy against the German Government, and sentenced to seven months' imprisonment. This charge was merely trumped up to give them a longer term of imprisonment.

During August and September tidings of the military victories of the Allies oozed through to Landshut Camp. The prisoners read only the German papers; but they could plainly see that operations were taking a favourable turn, in spite of the fact that all German

retirements were explained as "according to plan." They had been greatly depressed over the failure of the Prisoners of War Exchange Conference; but now their spirits rose and they had hopes of a more speedy release. I was still keeping myself before the German doctor in the camp with a view to being exchanged to Holland, as they would give me no medical treatment in Germany; but so far I had not succeeded in getting to a medical board. There were several officers in the camp with serious wounds, who, like myself, had been discharged too quickly from hospitals. As the German military reverses went on, social conditions were rapidly getting worse in Germany. The rain which fell nearly every day ruined a large proportion of the grain crops in the fields, and brought on a destructive potato disease. The Social Democratic party through their press were talking wildly and openly, and demanding peace at once. As they gained the support of the people, their demands to the Government for reforms became more and more insistent. When Bulgaria and then Austria laid down their arms, and the Allies continued to strike stunning blows on the western front, the storm burst on the heads of the German rulers, with the resultant request to the Allies for an armistice. The few weeks preceding the close of the war saw improvement in the conditions in the camp. The Germans realized that peace was not far off, and that it would not be to their advantage. Commandant Neymeyer strutted about with less confidence, and as if to curry favour with the prisoners refrained from insulting them and granted more privileges.

Another officer and myself were notified one day to get ready to go before a medical board at Aachen (Aix-la-Chapelle), near the Dutch border. We left next day under guard, on the ordinary passenger train, by way of Cologne. There were many German soldiers in the train, being rushed to the western front, and I was able to talk to some of them. Their spirits

were very low, — they knew they could not win the war now; their leaders were to blame; but they hoped to put up a fight that would win them a favourable peace and allow them to return to their homes. They asked what the people of England and America thought of them; and seemed most anxious to know if they would be allowed to immigrate to America after the war.

At Aachen I met twenty officers and about five hundred men, all waiting for the medical board. The men had come from prison camps and hospitals all over Germany; and most of them had severe wounds and were in a deplorable physical condition. The majority had been half starved and were mere skeletons, having in many cases been forced to work long hours under our own shell-fire behind the German lines, or in salt mines, with very little food. They told of appalling conditions in the working parties they had been with, and of hundreds who were dying weekly from sheer exhaustion. One man I talked to had broken his leg with an iron bar in order to free himself from the brutal treatment at the salt mines.

The medical commission consisted of three German doctors, who went over the five hundred officers and men in an hour and a half, hardly looking at many of them. Some were marked to go to England, some to Switzerland, and about two hundred to return to their prison camps. The last mentioned, many of whom were in bad condition, were almost broken-hearted at being turned back, after having come so near to freedom.

Two days later the three hundred of us who had been passed for exchange to England were put on a hospital train and taken across the border into Holland. Our journey through Holland was like a triumphal march. Many Dutch, British, and Belgian ladies came on board the train and loaded us with gifts, such as flowers, chocolate, fruit, and newspapers. The

Dutch people in the towns and villages waved and cheered us a welcome as we passed through on our way to Rotterdam. At Rotterdam the first meal at which since our imprisonment we had clean fresh food —white bread and real butter—made us all realize that we were really free at last

The trip across the North Sea on the hospital ship *Sindora* was quickly made; and it was a wonderful feeling to set foot on English soil once more.

APPENDIX V

REHABILITATING THE RETURNED SOLDIER

I

IN striking contrast to Great Britain and France, Canada possessed, in the first year of the war, no organization whatever wherewith to handle returned invalided soldiers; nor did suitable agencies exist to deal with the effluent problems of demobilization. Naturally, demobilization seemed a remote contingency until well on in the year 1918.

With the return of the first batches of wounded soldiers, the question of hospital accommodation assumed paramount importance. In meeting this emergency, there was laid the foundation of the vast system of control and training that now gives Canada a leading place in this respect among the nations of the world.

By an Order-in-Council dated June 30th, 1915, the Hospital Commission was brought into being. Its duties were to provide hospital accommodation for those of the wounded who were "stretcher" cases, and convalescent homes for those farther advanced on the road to recovery. Almost immediately, however, it was found necessary to enlarge the scope of the commission, the reason being that numbers of soldiers became disabled from various causes before leaving Canada.

On October 15th, 1915, a second Order-in-Council altered the name to the more high-sounding title of Military Hospitals and Convalescent Homes Com-

mission. At the same time the commission was empowered to place, or assist in placing, invalided soldiers in employment after they had been discharged from hospital or home.

There now arose discussion, ranging from the academic to the acrimonious, as to whether the commission should remain wholly in civilian control, as was the first plan, or be partly given over to the military authorities. In the end it was recognized that, up to a certain stage at least, amenability to military discipline was a *sine qua non.* Accordingly, it was arranged that the Army Medical Corps should be responsible for the medical service, and that a Military Hospitals Commission Command, responsible to the commission, should exercise military control over all patients who had not been discharged from military service. The administration of discipline at the commission's establishments was put in the hands of officers of the command, men partly incapacitated through service at the front being selected whenever practicable.

So tremendous in volume and so complicated in character did the commission's duties now become that reorganization and centralization appeared essential. Divided responsibility tended neither to efficiency nor to economy. Its units formed a huge congeries of establishments, some of which were well managed, some indifferently, and some far from well. Once more there was a clash between civil and military influences and once more a compromise was effected.

Accordingly, on April 1st, 1918, the commission was transferred to a Government department, with Sir James A. Lougheed representing it in the Dominion Cabinet, under the name of the Department of Soldiers' Civil Re-establishment. Active treatment hospitals and convalescent homes were transferred to the Department of Militia. The commission is now known as the Invalided Soldiers' Commission. The Board of Pensions Commission also forms part of the depart-

ment; and provincial commissions, working in conjunction with the department, see to the placing alike of disabled and able-bodied returned men in suitable employment.

Such, in boldest outline, is the history of the growth of the department that has assumed duties the effective performance of which will profoundly and beneficently affect Canada's destiny.

II

The most urgent and, for the present, the most vital activity of the Department of Soldiers' Civil Re-establishment is carried on by the Invalided Soldiers' Commission, through its Vocational Branch.

To quote from a recent special report made for the commission by Senator J. S. McLennan, the following postulates are laid down by the Government of Canada as a basis for the care of invalided soldiers:—

"That the disabled shall receive adequate pensions;

"That every effort shall be made, not only to restore, but to enhance the economic and social value of the invalided;

"That no reduction of pension shall result when an invalid acquires increased powers during or after convalescence;

"That the keep of an invalid's family is chargeable to the State;

"That those so injured as to be unfitted to resume their former callings are to receive training in some new occupation;

"That these advantages (except pensions) shall be available to invalids who have served in the land or sea forces of any part of the Empire, or in those of its Allies, provided the individual concerned was a resident of the Dominion at the time of his enlistment."

On these broad principles the procedure of the Invalided Soldiers' Commission had been based.

While the invalided soldier is still receiving "active" treatment in hospital, if his condition permits he is given a course of ward occupation (bed-side therapy). The purpose of these courses is primarily to divert the patient's mind from his ill fortune, and to stimulate him mentally and physically. Weaving, leather work, bead work, embroidery, and other like arts are thus taught, and many extremely ingenious devices have been invented to fit the bed-side requirements. The training thus received has no necessary bearing upon the patient's future vocation.

When the patient has so far progressed towards final recovery, he is introduced to a course of occupational therapy, still under the disciplinary control of the Canadian Army Medical Corps, but trained by instructors of the Vocational Branch. In workshops attached to the hospital he is now instructed in machine-shop practice, carpentry, art metal work, or in any of scores of occupations for which he may be adapted or from which his disability does not debar him. Through unconscious effort he restores the functioning and co-ordinating of his muscles. Occupational therapy is to be distinguished from functional re-training. The latter consists in conscious mechanical exercise on special mechanical contrivances that day by day register the invalid's recovery and increasing muscular development.

As soon as recovery is sufficiently complete to warrant it, steps are taken to introduce the returned man to what is to be his future employment. To this end he is interviewed by a trained officer of the commission to ascertain his fitness physically and mentally for resuming his pre-war occupation, or for entering on a course of training for a new calling. Although a carefully systematized routine, for both interviewing and medical examination, is adhered to, the limitations and temperamental vagaries of every individual are carefully weighed. In every instance the choice of

occupation is left as fully as circumstances permit to the man himself; subject, of course, to final approval by the commission. The vocational counsellor discusses matters fully with him. The nature of his disability and the kind of work in which he was formerly engaged are usually the determining factors. Other things being equal (which is not always the case), training in work nearly akin to the returned soldier's pre-war work is decided upon. In all this the vocational counsellor's influence is greatly enhanced by the fact that he has access to a complete record of each man's conduct since entering the army. Further "documentation" puts the counsellor in possession of other pertinent facts. Thus, tact, patience, and discernment on the part of the counsellor will very rarely indeed fail to secure the sympathy of the interviewed. If the first selection of training course prove unsuitable, as being either beyond or beneath the capacity of the individual taking it, provision is made for starting him on another and more appropriate course.

Before proceeding to outline the facilities provided for re-training, it may be noted that every disabled soldier receives his training quite free of cost, and that he and his family are maintained at the Government's cost during the period of training and for a certain specified time thereafter. Artificial limbs are also supplied, fitted, and repaired free of charge. Allowances and pensions are so adjusted as to reach certain minima, and to obviate the possibility of any recession of income during training.

III

The industrial re-training system of the Invalided Soldiers' Commission is represented by a chain — or, rather, a network — of institutions and industrial establishments stretching from Halifax to Vancouver. As need arises, the net is expanded. Its webs cover

scores of public and educational buildings, and hundreds of foundries, factories, craft shops, and commercial houses.

To lay the corner-stone of this tremendous edifice the first pre-essential was the Industrial Survey, more especially as shop and factory training has assumed preponderating importance as compared with classroom or institutional instruction. Recognizing this, Mr. W. E. Segsworth, Director of Vocational Training, after reviewing the situation, engaged Mr. G. A. Boate to organize a series of "intensive industrial surveys." While these surveys subserved several purposes, their prime object was to determine accurately and precisely the openings for disabled workers in Canadian industries and trades. Acting under Mr. Segsworth's instructions, Mr. Boate instituted the system that now obtains of training specially qualified officials to analyze, differentiate, and classify all the multitudinous occupations involved in industry and manufacture. Just here it is well to paraphrase slightly an official statement setting forth the objects and methods of the surveys.

The objects of the Industrial Survey are:

"To ascertain the occupational opportunities for industrial workers, the facilities for training them, and the facilities for absorbing them after training.

"To give concise, definite, and accurate information regarding these industrial opportunities to each vocational officer in the district where re-training is to be given; this information to be transmitted to applicants for re-training.

"To determine the fitness of existing educational institutions for the industrial re-training of disabled men.

"To classify industrial opportunities as regards permanence and variety, some industries being uniform all over the country, whilst others are peculiar to certain localities. The applicant for a course in re-training should know all its limitations — whether

it is broad or confined; whether it affords temporary, seasonal, or permanent employment; whether previous experience is required, and how the applicant's former experience may be realized; the rate of pay to be expected; and the probable length of time necessary for preparation for the new vocation.

"To ascertain the attitude of employers to the disabled soldier, and to present adequately to them the aims and objects of the Vocational Branch of the Invalided Soldiers' Commission.

"The Industrial Surveyor is able to act as a liaison officer between the District Officer of the Invalided Soldiers' Commission and the heads of industries. In all cases where men are placed in an industry for the completion of their re-training they are accompanied by a representative of the I.S.C., preferably by one who has surveyed that particular industry, and are brought to the personal attention of their employers. The Industrial Commissioner is also of further assistance in the establishment of aid and advice departments, follow-up systems, and employment bureaus, and in the adjustment of labour union regulations and the interpretation and working of Workmen's Compensation Laws. The surveys, however, serve as a safeguard against the danger of deleterious living and working surroundings."

The information that the Industrial Surveyor secures concerning hours, remuneration, tools, training required, related experience of applicant, desirability of preliminary school training, etc., is supplemented by a comprehensive "Disability Sheet," whereby the suitability or otherwise of each branch of work to every kind of disability can be determined. This is vital, as is also the assurance of the sympathy and co-operation of the employer. So invaluable have the surveys proved that they are likely to be adopted by the employers themselves. As analyses of energy spent in production and as examinations into the fit-

ness of the man for the job (or vice versa) they are singularly illuminating. Above all things, any system of training disabled soldiers must be elastic and highly adaptable. The applicants may be youths of nineteen or twenty or men of fifty years of age. A very wide range of mental development is encountered and every variety of temperament. Naturally, also, the idiosyncrasies and crotchets of many disabled men have become intensified. Here, again, a quotation from an address by Mr. Segsworth is timely.

"Two distinct methods of training have been adopted: The first, in which the man is trained to an occupation in a factory or industry in which he is to carry on; and the other in which he is taught his new occupation entirely in a trade school or other educational institution. The two methods, however, are the extremes. The system is so operated that a man can follow a course which varies anywhere these two extremes. . . . Careful consideration is given as to whether his training can be given completely in the industry, or completely in the school, or partly in both. If he is to have composite training, the course is laid out to fit the individual case, and the training given in the school is placed as far as possible on the individual, or tuition, basis."

The disabled soldier, therefore, gets off to a very good start indeed. His progress is watched by the Vocational Branch officials, his employers are interested in him, and he has every incentive to make good. The transition from tutelage to wage-earning is almost imperceptible. The only outward and visible manifestation of the change is the substitution on pay day of the employer's cheque for that of the Invalided Soldiers' Commission. Meanwhile he is working towards the goal of efficiency. His disability has been discounted to the utmost, and all possible pains taken so to adjust this task as to minimize his handicap. These are ideals to which results to the present time

have well corresponded. The Vocational Branch offers re-training in about one hundred and ninety occupations — a surprising number when one thinks over the relatively few trades with which we are familiar by name. On June 1st, 1918, there were 3,800 men undergoing training; on June 1st, 1919, there were 11,161; and already (November, 1919) there have been considerably over 6,000 graduates. The larger percentage have taken courses in motor mechanics, commercial work, cobbling, telegraphy, and civil service, but nearly all vocations are represented. It is to be noted, too, that the fear expressed by labour unions that trades would be overcrowded by returned disabled soldiers has proved to be groundless. Summing up, the Invalided Soldiers' Commission, through the Vocational Branch, seeks to give the disabled soldier the most advantageous re-entry into civil life. His bodily and mental welfare is a prime consideration; he is stimulated to the highest endeavour by the example of his fellows and by the potent influence of his surroundings. Not seldom his disability proves to be a real advantage.

IV

Reverting now to the Department of Soldiers' Civil Re-establishment as a whole, we find that its general functions comprise the following:

Demobilization, in so far as the allocation and future training or employment of returned soldiers are concerned;

Vocational training of disabled soldiers;

Industrial re-training of the disabled;

Assignment of non-invalided soldiers to occupations (conjointly with the various provincial commissions);

Direction of the Board of Pensions Commissioners for Canada.

Every returned soldier, now become a re-established

citizen, will be assigned his future work through the agency of demobilization employment offices established throughout Canada at every military dispersal centre, and in every city of 10,000 population and over. The offices are under direct control of provincial commissions and departments of labour, and are in close co-operation with the Department of Soldiers' Civil Re-establishment. For the actual carrying on of the whole scheme, existing labour bureaus and employment agencies will be utilized, and new offices established to whatever extent may prove necessary. Every provincial returned soldiers' commission is charged with the duty of directing applicants to employment offices. At each office there is a representative of the department who is instructed to help and guide the returned men. Through the provincial commission this representative reports regularly to the department in Ottawa. In each unit headquarters also the department is represented by a demobilization officer, who acts in an advisory capacity as a member of the provincial commission. In these various capacities only returned soldiers are employed. In so far as possible this rule is followed in every phase of demobilization.

To facilitate matters, the Department of Soldiers' Civil Re-establishment conducted a comprehensive *questionnaire* of the members of the Canadian Expeditionary Force before they left England. Soldiers were required to state their occupations before enlistment; the occupations they wished to follow in Canada; the dispersal areas they had chosen; and all other necessary details. This information has been tabulated and is used by the Department of Labour in connection with the survey of industries which has been carried on.

It may be interesting to give some figures of actual work accomplished. In the Medical Service, on June 1st, 1918, there were 1,200 cases under treatment; a

year later there were 10,780 patients. On the latter date there had been 13,754 amputations and orthopedic cases, and about 3,500 artificial limbs supplied. At the time of demobilization there had been 204,326 ex-members interviewed and 119,325 requests for information had been received. There are 89 free Government employment offices in Canada, and on June 1st, 1919, 53,165 applications had been received for placement in touch with opportunities. Of the graduates in vocational training, 85 per cent. are in employment. These are exceedingly interesting facts and essential to know in determining the nature of the service that has been and is being performed for the returned soldier in Canada — said to be the most efficient of any of the after-the-war services among the Allies. Pensions and Soldiers' Settlement are two departments which require separate treatment.

V

The work of the Board of Pension Commissioners is now the most important branch of after-war work, because of the financial responsibilities involved and the permanent nature of the service, and from the very nature of the service it was bound at first to be much misunderstood. A few preliminary observations are necessary. The payment of a pension to a soldier or a sailor is merely the discharge (and it may be only a very small part) of the debt his country owes him. The pension award is based absolutely on the nature and extent of the disability. The Board of Pension Commissioners is a purely administrative body, possessing neither remedial nor discretionary powers. Its sole function is to apply the pension regulations justly and fairly. Briefly, the subject may for consideration be divided into three parts: 1. Pensions, to whom payable; 2. Pensions, how administered; 3. Pensions, procedure in awarding.

1. In arriving at a decision regarding the payment of a pension, it matters not what the soldier's previous occupation may have been; the disablement resulting from his war experience alone is considered. Irrespective of his earnings, account is taken of his disablement, and if it decreases his pension will be reduced, and if it increases his pension will be increased. Pensions are payable to the widows and children of soldiers who have lost their lives, whether or not the beneficiaries are self-supporting. In the case of parents and guardians, pensions are paid to those only when they have no other adequate means of support. The widow of a member of the forces who has died as the result of service is entitled to a pension so long as she does not marry again. Pensioners' children are entitled to pensions up to the age of sixteen years, if boys, and seventeen, if girls. Should a pensioner find that his disability — due to or aggravated by active service — prevents him from following his former trade or occupation, he should apply to the Department of Soldiers' Civil Re-establishment for vocational training in order that he may acquire a trade which the handicap of his disability will not prevent him from following with success. There are, of course, a variety of conditions and exceptional cases which have to be considered on their merits and about which it is not possible to indicate exact treatment.

2. Canada's yearly pension bill is estimated at $35,000,000 annually. The administration of this vast sum has been placed in the hands of a board of commissioners consisting of three members, each appointed for ten years, having exclusive jurisdiction and authority to deal with all pensions provided for by law and to administer them according to the regulations governing payment. As a consequence, a very large organization has been built up, with district offices from coast to coast and a branch office in London, England. When the board took office 2,700 pen-

sions were being paid, which number has increased to over 70,000, and the number of the staff has increased from 34 to nearly 1,300. Of the total number of pensions paid, over three-fourths are disability pensions, the remainder to soldiers' dependents. It is unnecessary to say that, as the result of experience in a department unknown before the war in Canada, a good many changes have been made in the law and regulations. Among other things, the pension rates have been substantially increased for total disability and to soldiers' widows and pensioners' children.

3. Every man before he is discharged is medically examined or boarded, and it is as the result of this examination that the man's disability and the amount of his pension are determined. There are, however, numerous district officers with medical examiners attached; and if a man is dissatisfied with the decision, machinery is provided for re-examination. If the results of this examination justify an increase in the first award, an adjustment is made without delay. A widow's pension, however, is awarded as soon as notification of her husband's death has been received, and payment is arranged to commence immediately separation allowance and assigned pay cease. The principle of "proven dependency" is applied in regard to pensions for dependents other than widows and children. Parents, or persons in the place of parents, who were dependent on a deceased member of the forces, or who would in the future have become dependent on a deceased member of the forces, are awarded pensions in amounts sufficient to provide maintenance. In addition to actual administration of individual cases, the board has established agencies through its district offices for keeping in touch with pensioners in order that the latter may be always supplied with information or assistance as required — the human touch in a large legal machine.

VI

The settlement of soldiers on the land is looked after by a Soldiers' Settlement Board quite separate from the Soldiers' Civil Re-establishment and is under the direction of the Minister of the Interior. This is naturally so, because the former has to do with land as a basis of settlement, and land is within the jurisdiction of the Interior Department. So far as a soldier chooses to go on the land as the result of a selection originating with the latter, the two boards are associated in purpose; but they part company at the point of selection. It is the duty of the Soldiers' Settlement Board to take him over and superintend his settlement on farming lands. The Act of 1917 enabled the board to grant a free entry of 160 acres in the Prairie Provinces to a soldier settler and to loan up to $2,500 for the purpose of acquiring additional land, paying off encumbrances on farm land, and for buildings, live-stock, machinery, and other equipment. Early in 1918 power was given to the board to purchase lands in any part of Canada for resale to soldier settlers. The board may loan to a settler who desires to purchase vacant land or an improved farm up to $4,500, and it may also loan up to $2,000 for live-stock, implements, and equipment, and up to $1,000 for the erection of buildings and other permanent improvements. The $4,000 and $1,000 loans are repayable in not more than twenty-five years in annual instalments at the rate of five per cent. amortized; and the loans for live-stock, etc., are repayable in four equal annual instalments, beginning the third year, no interest being charged for the first two years. On the purchase price of the land the board requires a cash payment of ten per cent. from the settler; but this may be waived in special cases. There is a further provision for the benefit of settlers who already own land. The board may loan up to $2,500 on first mortgage security for agricultural

purposes or to discharge encumbrances, repayment to be made in twenty annual instalments. The Soldiers' Settlement Board has arranged with manufacturers of implements, harness, wagons, etc., for cheap rates; also with the Western Grain Growers, Ltd., for cheap prices for commodities carried by them; and is purchasing through live-stock experts horses, cattle, sheep, and swine of good quality at the best prices to sell to soldier farmers, without cost of service. The terms of settlement apply to all soldiers or sailors who have served in Canadian, Imperial, or other Dominion forces outside the country in which they enlisted, that is, with honourable record. A British subject in Canada before the war in an actual theatre of war or a member of the C.E.F., who, although not serving overseas, incurred disability through service and is in receipt of a pension, is also eligible.

Such arrangements as these, to be sound, must necessarily be surrounded by all possible safeguards. The applicant must appear before the Qualification Committee of his district, which determines his military record, physical fitness, and his likelihood to make a success of farming. In case an applicant possesses all the other qualifications and lacks sufficient experience to warrant the committee placing him on land of his own, it may recommend him for further training, provision for which has been made at a number of training centres specially equipped, where he may be given a three months' course in practical agriculture; or the committee may determine that he is definitely unfitted for farming and refuse to qualify him. Upon becoming qualified, the candidate may appear before the Loan Committee of his district, select his own land, and, if found suitable, may be advanced the necessary money for his purposes. Once settled on his land, the soldier is visited from time to time by agricultural advisers of the board and assisted in any way that seems to be necessary. The co-operation of successful

farmers in his neighbourhood is also solicited to take an interest in his welfare and watch over his operations and give timely advice. During the time a soldier settler is receiving training he may be granted allowances for himself and his dependents, which are on a generous scale.

An important amendment to the Soldiers' Settlement Act was incorporated during the last session, reflecting a somewhat radical advance in the policy of the Government. Introduced at the instance of the Minister of the Interior, it gives the power to expropriate land required for settlement. The board may determine a " settlement area " in any district where lands are being held back from cultivation and go upon such lands and acquire them compulsorily, if necessary, for the use of soldier settlers.

STATEMENT OF LOANS TO SEPTEMBER 6th, 1919

Province	*Approved*	*Refused*	*Amount*
Prince Edward Island	170	20	$346,508
Nova Scotia	220	18	362,714
New Brunswick	259	83	656,356
Quebec:			
Montreal	166	25	634,982
Sherbrooke	79	7	404,711
Ontario	631	151	2,040,984
Manitoba	1,700	354	5,357,807
Saskatchewan:			
Regina	1,000	324	3,376,191
Saskatoon	523	85	1,837,683
Prince Albert	576	110	1,345,952
Alberta:			
Edmonton	3,106	621	7,508,273
Calgary	724	249	3,198,532
British Columbia:			
Vancouver	1,118	200	3,909,287
Victoria	467	137	1,668,037
Total	10,739	2,384	$32,648,017
Average loan per settler			$3,040

Having in mind all the provisions and arrangements made for the returned soldier in Canada, it cannot be denied that they are both comprehensive and liberal to a degree that could scarcely suggest an improvement. In the main they will be well deserved and fully justified. The preceding table will be of special interest as illustrating results practically to date.

VII

For a time before the war ended and for a little time after, the word "reconstruction" was in everybody's mouth. It meant something in the way of national policies which would help Canada not only to resume its normal activities, but to apply the lessons learned in the war to a stimulation of efforts on improved lines. So important was this considered to be that the office of Minister of Reconstruction was created when the Union Government was formed. The duty of the minister was to study the problems created by the war and to adjust Canada as far as possible to the conditions which would be faced after the war. About a year had elapsed when the Hon. A. K. Maclean, who filled the portfolio, addressed the Canadian Club at Ottawa on the subject of reconstruction. He affirmed then that "reconstruction" was not the proper word to have defined the duties of the office, and suggested that "readjustment" was a better word. In a careful presentation of his views on the situation, he expressed the view that apart from such measures as were necessary in the further development of the country in the way of assistance to railways, shipbuilding, land settlement, fiscal revision, and the like, the main and practically the only problem lay in the civil re-establishment of the returning soldiers. He outlined the work of the Government in this respect, and said that all that could reasonably be done was being done. He held that in respect of trade and com-

merce and the development of industry to meet the financial requirements of the country created by war indebtedness, private enterprise would be found equal, as it had always been found in the past, to solve the problems with which the country was faced. The Government could only assist, encourage, and lead the way. It could not do what the people must do for themselves. And that is the position of to-day. Parliament has made large provision for consolidation of railways under government control. It has extended liberal aid towards road-building and has continued and expanded the programme of ship-building entered upon during the war. The establishment of public cold storage has been decided upon and arrangements have been made for the extension of export trade in Europe. Undoubtedly, however, the most important and possibly the most difficult undertakings have been in connection with the returned soldiers. Demobilization has been successfully and expeditiously completed, and what has been outlined in the foregoing as to their civil re-establishment is an earnest at least of fulfilling to the utmost the country's just responsibilities in respect of their future. As a social and political factor of Canada, the returned men have already asserted themselves, and what their future course will be is one fraught with the profoundest of consequences to our country.

APPENDIX VI

CHRONOLOGICAL ACCOUNT OF THE GREAT WORLD WAR—1916

Jan. 1. Russian victory on the Strypa.
Jan. 2. Yaunde, Cameroons, captured by the British. Steamer *Glengyle* sunk in the Mediterranean.
Jan. 4. British success in the Cameroons.
Jan. 5. Compulsory Military Service Bill introduced into British Parliament.
Jan. 8. Capture of Chartorysk by the Russians. Defeat of the Turks by General Aylmer. Gallipoli evacuated.
Jan. 9. German attack in Champagne repulsed. H.M.S. *King Edward* sunk by mine in the North Sea.
Jan. 10. Mount Lovtchen, Montenegro, stormed by Austrian troops.
Jan. 11. Russian invasion of Turkish Armenia begins.
Jan. 13. Austrians enter Cettinje, capital of Montenegro.
Jan. 15. The raider *Moewe* captures British steamer *Appam* off Madeira.
Jan. 16. Russians abandon campaign against Czernovitz.
Jan. 17. Russian success in the Caucasus.
Jan. 19. Allied War Council meets in London. British forces occupy Ebolowa, Cameroons.
Jan. 21. Allied warships bombard Dedeagatch.
Jan. 22. Allied air raid on Zeebrugge.
Jan. 23. Austrian occupation of Scutari. German air raid on Kent.
Jan. 25. Port of San Giovanni di Medua (Albania) falls to Austrians.
Jan. 27. British Military Service Act becomes law. American Note, protesting against British search of mails, issued.
Jan. 28. German success at Frise on the Somme. Greek fortress of Kara Barun, near Salonika, occupied by Allies.
Jan. 29–30. Zeppelin raids on Paris.

Jan. 31. Zeppelin raid over Eastern, North-Eastern, and Midland counties of England, resulting in the death of sixty-seven persons.

Feb. 1. German air raid on Salonika. British steamer *Appam* arrives at Norfolk, Va., with prize crew on board.

Feb. 3. Zeppelin L19 wrecked in the North Sea.

Feb. 4. British relief expedition held up on the Tigris.

Feb. 8. French cruiser *Amiral Charner* sunk by submarine off the Syrian coast. Greek island of Fano (near Corfu) occupied by French troops.

Feb. 9. German seaplanes drop bombs in Ramsgate and Broadstairs. General Smuts assumes command of British forces in German East Africa.

Feb. 10. Date of commencement of Military Service Act.

Feb. 11. H.M.S. *Arethusa* sunk by mine off the East Coast.

Feb. 14. Austrian air raid on Milan. Allies jointly pledge themselves to fight on until Belgian independence is restored.

Feb. 16. Verdun evacuated by civilians. French success at Tahure (Champagne). Erzerum captured by the Russians.

Feb. 18. Last German forces in the Cameroons surrender at Mora.

Feb. 20. Seaplane raid on Lowestoft and Walmer.

Feb. 21. Opening day of the assaults on Verdun; Germans make progress. Zeppelin destroyed by French incendiary bomb near Révigny.

Feb. 22. Opening of the Russian Duma. Vice-Admiral Scheer appointed to command Russian battle fleet.

Feb. 23. French reverses at Verdun. German steamers in the Tagus commandeered by the Portuguese.

Feb. 25. Douaumont redoubt at Verdun captured by the Germans.

Feb. 26. Successful French counter-attack on Fort Douaumont. Withdrawal of Allied troops from Albania. Russians capture Kermanshah (Western Persia). Kuropatkin appointed Commander-in-Chief of Russian armies on northern front. French transport *Provence II* sunk in Western Mediterranean.

Feb. 27. British steamer *Majola* sunk by mine in the English Channel.

Feb. 29. First stage in the battle of Verdun ended. Encounter in North Sea between German raider *Greif* and British armed cruiser *Alcantara;* both ships sunk. German ships in Italian harbours commandeered.

Mar. 1. British mine-sweeper *Primula* sunk in Eastern Mediterranean. Blockade of German Cameroons raised. German ultimatum to Portugal.
Mar. 2. Fierce struggle for possession of Fort Douaumont. Capture of Bitlis by the Russians.
Mar. 4. Raider *Moewe* returns to a German port after cruise of several months in the South Atlantic.
Mar. 5. Zeppelin raid over Eastern and East-Midland counties, England.
Mar. 6. German attacks on Goose Hill (Verdun) begin; village of Forges captured.
Mar. 8. Russian success near Trebizond. British attack frustrated at Es Sinn (Mesopotamia).
Mar. 9. Attacks on Fort Vaux (Verdun). British troops occupy Chala and Taveta, German East Africa. H.M.S. *Coquette* and British torpedo boat sunk by mines off East Coast.
Mar. 10. Germany declares war on Portugal.
Mar. 12. Kerind, on the Turko-Persian frontier, captured by Russians.
Mar. 14. German attacks on Le Mort Homme (Verdun) begin; the slopes carried. British reoccupy Sollum, on the Egypto-Tripolitan frontier.
Mar. 15. Austria-Hungary declares war on Portugal.
Mar. 16. German repulse at Fort Vaux. Dutch liner *Tubantia* torpedoed and sunk off Dutch coast.
Mar. 17. Russians begin offensive south of Dvinsk.
Mar. 18. Germans win at the Hohenzollern Redoubt. Dutch liner *Palembang* torpedoed and sunk in the North Sea.
Mar. 19. Seaplane raid on East Kent. Russians capture Ispahan, Persia.
Mar. 20. German assaults on Avocourt Wood and Hill 304 (Verdun). Zeebrugge bombarded by Allied aeroplanes. Russian success on the Dniester.
Mar. 21. German successes at Verdun.
Mar. 22. Russian victory near Dvinsk. Liner *Minneapolis* torpedoed and sunk in the Mediterranean.
Mar. 24. British steamer *Sussex* torpedoed off Dieppe.
Mar. 27. British success at St. Eloi. Air raid on Salonika.
Mar. 28. Austrian campaign in Gorizia begins.
Mar. 30. Heavy fighting at Fort Douaumont. Russian hospital ship *Portugal* sunk in the Black Sea.
Mar. 31. Zeppelin raid on the Eastern counties.
Apr. 1. Malancourt and Haucourt (Verdun) captured by the Germans. Zeppelin raid on the North-East Coast.

Apr. 2. Zeppelin raid on South-East Scottish Coast.
Apr. 4. Zeppelin raid on Eastern counties of England. Brusiloff succeeds Ivanoff in command of Russian troops in Volhynia and Galicia.
Apr. 7. Germany concludes commercial treaty with Rumania. British liner *Simla* torpedoed and sunk in the Mediterranean.
Apr. 10. Portuguese forces occupy Kionga (German East Africa).
Apr. 11. Allies land in Cephalonia Island in the Ionian Sea.
Apr. 14. Naval aeroplanes bombard Constantinople and Adrianople.
Apr. 15. Russian success near Vilna.
Apr. 17. Col di Lana mined by the Italians. Russians enter Trebizond.
Apr. 18. German repulse at Pepper Ridge (Verdun); end of second phase of Battle of Verdun. Russian occupation of Trebizond.
Apr. 19. American Note to Germany on unrestrained submarine warfare.
Apr. 20. Russian troops land at Marseilles. Outbreak of rebellion in Ireland.
Apr. 21. Sir Roger Casement lands in Ireland and is taken prisoner.
Apr. 23. Turks destroy British camp at Katia, east of the Red Sea. British assault fails at Sanna-i-yat, on the Tigris.
Apr. 24–26. Street fighting in Dublin. Zeppelins raid Norfolk and Suffolk.
Apr. 25. German battle-cruiser raid on Lowestoft and Yarmouth. British sumarine sunk. Zeppelin raid on Eastern counties. Secret session of British House of Commons.
Apr. 27. H.M.S. *Russell* sunk by mine in the Mediterranean. Ireland placed under martial law. War Council of the Allies in Paris.
Apr. 28. Russian defeat near Lake Narotch.
Apr. 29. Fall of Kut-el-Amara; surrender of Townshend's forces.
Apr. 30. Ipswich and Bury bombed by German aviators.
May 1. French success near Fort Douaumont. End of the Dublin rising.
May 2. French victory at Le Mort Homme. Zeppelin raid on North-East England and South-East Scotland.

May 3. Three leaders of Irish rebellion shot. Bill introduced to apply conscription to married men in Great Britain.
May 4. Fierce fighting for Hill 304 begins. Germany, in Note to United States, promises to refrain from sinking ships without warning.
May 7. Russian warships bombard coast of Courland.
May 8. Zeppelin brought down at Salonika. Steamer *Cymric* torpedoed and sunk off west coast of Ireland.
May 14. Austrian drive in the Trentino begins.
May 16. Austrian advance in the Trentino.
May 18. El Arish, Sinai Peninsula, bombarded by British monitors. Russian forces in touch with British on the Tigris.
May 19. Desperate German attacks on Le Mort Homme.
May 20. Slopes of Le Mort Homme captured by Germans. Italians take up new line in the Trentino.
May 22. British forces defeat followers of Sultan of Darfur (West Sudan).
May 24. Germans capture Fort Douaumont. Attack on Cumières, west of the Meuse.
May 25. Compulsory service for married men becomes law in Great Britain. German Government takes over all food supplies.
May 26. Bulgarians seize frontier forts in Greece.
May 27. Death of General Gallieni.
May 28. German success at Cumières.
May 29. Culminating attack on Verdun on left bank of Meuse. Italian evacuation of Asiago and Arsièro. Neu Langenburg, German East Africa, captured by British.
May 30. Further German success at Cumières.
May 31. Great naval battle off Jutland; British lose three battle-cruisers, three armoured cruisers, and eight destroyers; German losses indefinitely stated.
June 3. Fort Vaux (Verdun) isolated.
June 4. Russian drive in Volhynia and Bukovina begins.
June 5. H.M.S. *Hampshire* sunk by mine west of the Orkneys; Lord Kitchener and his staff drowned.
June 6. Lutsk captured by the Russians.
June 7. Fort Vaux surrendered to the Germans.
June 8. Russians capture Buczacz on the Strypa river.
June 9. Partial demobilization of Greek army. Allied War Council in London. Italian transport *Principe Umberto* sunk.

June 10. Salandra ministry in Italy defeated.
June 11. Austrian defeat near Czernovitz. Russians retake Dubno.
June 14. Wilhelmsthal, German East Africa, occupied by British. Entente Economic Conference in Paris.
June 17. Russians recapture Czernovitz. H.M.S. *Eden* sunk in collision.
June 18. Austrian drive in the Trentino checked. Death of Field Marshal von Moltke.
June 20. Arab tribesmen revolt against Turks; capture of Mecca and Jeddah.
June 22. Resignation of Skouloudis Cabinet in Greece, followed by acceptance of Entente demand for demobilization.
June 23. Germans capture Fort Thiaumont (Verdun). Russian occupation of Bukovina complete.
June 24. Second British Military Service Act in operation.
June 25. Italian counter-offensive in the Trentino begins; Asiago and Arsièro reoccupied.
June 26. Trial of Sir Roger Casement begins.
June 28. Austrians defeated before Kolomea. Declaration of London to be abandoned by British Government.
June 29. Russians occupy Kolomea. Sir Roger Casement sentenced to death.
June 30. Fort Thiaumont recovered by the French. End of third phase of Battle of Verdun.
July 1. Allied offensive on the Somme begins; British capture Mametz and Montauban.
July 3. British capture La Boiselle; French advance towards Peronne.
July 4. Russian offensive on the Styr.
July 5. Russian advance towards the Stokhod.
July 6. Lloyd George succeeds Kitchener as British Minister of War.
July 7. Storming of Leipzig Redoubt by the British. Contalmaison captured.
July 8. British Government repudiates the Declaration of London. Russians capture Delatyn, Bukovina.
July 9. British occupy Tanga (German East Africa). French capture Hardecourt. German merchant submarine *Deutschland* arrives at Norfolk, Va.
July 11. German submarine bombards Seaham harbour.
July 12. British capture Mametz Wood.
July 15. Ovillers captured by British; struggle in Delville Wood. Russian offensive on the Lipa.

July 18. Muanza (Lake Victoria Nyanza) captured by British forces.
July 20. Russians cross the Styr and capture 12,000 prisoners.
July 22. British attack on Pozières begins.
July 25. Erzingyan (Armenia) captured by Russians.
July 26. British capture Pozières.
July 27. Captain Fryatt executed for ramming a German submarine.
July 28. Longueval taken by British. Russians capture Brody.
July 29. Steamer *Appam* awarded to its British owners by decision of United States court.
July 30. Dodoma (German East Africa) occupied by British.
Aug. 2. Italian warship *Leonardo da Vinci* sunk by explosion in Taranto harbour.
Aug. 3. Execution of Sir Roger Casement.
Aug. 4. Italian offensive on the Italian front begins. Turkish attack on Suez Canal at Rumani frustrated.
Aug. 6. Russians cross the Sereth and Graberka rivers.
Aug. 8. Bitlis and Mush evacuated by Russians. San Michele (Isonzo front) captured by Italians.
Aug. 9. Italian entry into Gorizia.
Aug. 10. Russians capture Stanislau.
Aug. 11. French occupy Doiran, Greece.
Aug. 12. Seaplane attack on Dover.
Aug. 13. Russians capture Mariampol.
Aug. 15. Italian advance on Trieste stayed. Russians occupy Jablonica in the Carpathians.
Aug. 17. Serbians resume hostilities near Florina, Greece.
Aug. 18. Russian advance in the Carpathians begins.
Aug. 19. Thiepval Ridge captured by British. German battleship *Westfalen* torpedoed in the North Sea. British light cruisers *Nottingham* and *Falmouth* torpedoed in the North Sea.
Aug. 21. Allied offensive on Salonika front.
Aug. 22. British forces occupy Kilossa, German East Africa.
Aug. 23. Bulgars occupy Koritza, Albania.
Aug. 24. London and East Coast raided by Zeppelins.
Aug. 25. H.M.S. *Duke of Albany* torpedoed and sunk in the North Sea. Mush and Bitlis retaken by Russians.
Aug. 27. Italy declares war on Germany. Rumania declares war on Austria-Hungary.
Aug. 28. Germany declares war on Rumania.
Aug. 30. Rumanians seize Carpathian passes into Hungary. Russian advance in the Carpathians. Turkey de-

clares war against Rumania. Hindenburg replaces Falkenhayn as Chief of the German General Staff.

Aug. 31. Rumanians occupy Kronstadt.

Sept. 1. Austrian evacuation of Hermannstadt.

Sept. 2. Bulgarians invade the Dobruja. Allied Note to Greece demanding control of posts and telegraphs and expulsion of enemy agents.

Sept. 3. French advance between Maurepas and the Somme. British capture Guillemont. Zeppelin attack on London and Eastern counties; raider brought down at Cuffley, Herts.

Sept. 4. Dar-es-Salaam (German East Africa) surrendered to British forces.

Sept. 5. Russian success near Halicz.

Sept. 6. Turtukai, in the Dobruja, stormed by Bulgarians.

Sept. 7. Rumanians occupy Orsova.

Sept. 9. Ginchy captured by the British. Bulgarians capture Silistria.

Sept. 11. British forces capture Tabora (German East Africa).

Sept. 12. Greek port of Kavala makes voluntary surrender to Bulgarians; garrison removed to Germany.

Sept. 14. Italian advance on the Carso. Serbians advance towards Monastir.

Sept. 15. San Grado captured by the Italians. Courcelette, Martinpuich, and Flers captured by the British. First employment of armoured tanks.

Sept. 16. Renewed British successes on the Somme; German counter-attacks at Courcelette. Russian victory north of Halicz.

Sept. 18. Florina, Macedonia, captured by the French.

Sept. 19–23. Rumanians expelled from the Vulcan Pass. Allies blockade Greek ports.

Sept. 20. Italian advance on the Carso and near Gorizia.

Sept. 22. Air raid on Dover.

Sept. 23. Zeppelin raid on London and the Eastern counties. Two Zeppelins brought down in Essex.

Sept. 26. Thiepval captured by the British, Frégicourt and Combles by the French. Rumanian rout at Hermannstadt begins.

Sept. 29. Venizelos organizes provisional government at Salonika.

Oct. 1. Russian offensive in Bukovina resumed.

Oct. 3. Greek Cabinet resigns.

Oct. 4. British steamship *Franconia* and French cruiser *Gallia* sunk by submarines in the Mediterranean.

Oct. 6. German war submarine U–53 enters harbour of Newport, R. I.
Oct. 8. U53 sinks merchant ships off Nantucket. Rumanians evacuate Kronstadt.
Oct. 10. Allied Ultimatum to Greece.
Oct. 11. Greek navy surrendered to the Entente Allies. Italian success on the Carso.
Oct. 13. German drive in Rumania begins.
Oct. 16. Transylvania cleared of Rumanian troops. French capture Sailly-Saillisel.
Oct. 17. Allied forces land in Athens.
Oct. 20. Announcement of sinking of Cunarder *Alaunia*. Russian battleship *Imperatritsa Maria* blown up.
Oct. 21. Assassination of Count Sturgkh, Austrian Premier.
Oct. 22. Germans and Bulgarians occupy Constantza.
Oct. 23. Air raid on Margate. Mine-sweeper *Genissa* torpedoed by submarine.
Oct. 24. French victory at Verdun; Douaumont recaptured.
Oct. 25. Bulgarians capture Tchernavoda.
Oct. 26. German torpedo-boat raid on English Channel.
Oct. 28. Steamer *Marina* sunk by submarine in the Atlantic.
Nov. 1. Successful Italian offensive in the Carso plateau. Fight between destroyers in the North Sea. Italians raid Pola.
Nov. 2. Germans evacuate Fort Vaux. Constantza bombarded by Russian warships.
Nov. 5. French capture Saillisel and Vaux villages. Central Powers proclaim establishment of independent Kingdom of Poland.
Nov. 6. Steamship *Arabia* sunk by submarine in the Mediterranean.
Nov. 7. Cardinal Mercier protests against the German deportations.
Nov. 9. Successful Teutonic offensive launched in Stokhod region of Volhynia.
Nov. 10. Serbian gain near Monastir. Naval air raid on Zeebrugge and Ostend.
Nov. 13. British attack on the Ancre begins; capture of Beaumont Hamel.
Nov. 14. British capture Beaucourt.
Nov. 15–17. Rumanian defeat in three-days' battle at Tirgujiulij. Air raid on Zeebrugge and Ostend.
Nov. 18. Monastir occupied by the Serbians and French.
Nov. 21. Craiova, headquarters of Rumanian First Army, occupied by Germans. Hospital ship *Britannia* sunk in

the Ægean. Death of the Emperor Francis Joseph of Austria.

Nov. 24. Hospital ship *Braemar* sunk in the Ægean. Greek provisional government declares war on Germany and Bulgaria.

Nov. 25. Teutonic armies effect junction in Rumania.

Nov. 26. German cruisers raid Lowestoft.

Nov. 27. Two Zeppelins destroyed while raiding England.

Nov. 29. Sir David Beatty, Commander-in-Chief of the Grand Fleet; Sir John Jellicoe, First Sea Lord of the Admiralty.

Dec. 3. German submarine bombards Funchal (Madeira).

Dec. 5. Resignation of Lloyd George, followed by resignation of Premier Asquith.

Dec. 6. Germans storm Hill 304 (Verdun). Bucharest occupied by Teutonic forces. Lloyd George, British Prime Minister.

Dec. 8. Rumanian army, trapped in the Prakovo valley, surrenders. French battleship *Suffren* sunk in the Mediterranean. Allied blockade of Greece.

Dec. 12. General Robert Nivelle, Commander-in-Chief of armies in France. Germany publishes peace proposals.

Dec. 13. British bombard Sanna-i-yat, on the Tigris.

Dec. 14. Allies demand Greek demobilization.

Dec. 15. French victories at Verdun. Rumanians evacuate Buzcu. British success at Kibata, German East Africa. Allied Ultimatum accepted by Greece.

Dec. 19. Peace Note issued by President Wilson.

Dec. 21. El Arish, Sinai Peninsula, occupied by British.

Dec. 24. Teutonic conquest of the Dobruja completed.

Dec. 30. Allies decline German peace proposals. French battleship *Gaulois* torpedoed in the Mediterranean.

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